



Campus Bulletin 2002-2004

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**Indiana University
Purdue University
Indianapolis**

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Contents

**Bulletin
Homepage**

**Get
Acrobat
Reader**

Back

Introduction and General Information

IU School of Allied Health Sciences

IU Herron School of Art

IU Kelley School of Business

IU School of Continuing Studies

IU School of Dentistry

IU School of Education

Purdue School of Engineering and Technology

Graduate Programs

IU School of Informatics and IUPUI New Media Program

IU School of Journalism

IU School of Law-Indianapolis

IU School of Liberal Arts

IU School of Library and Information Science

IU School of Medicine

IU School of Music

IU School of Nursing

IUPUI Columbus

IU School of Optometry

IU School of Physical Education

IU School of Public and Environmental Affairs

Purdue School of Science

IU School of Social Work

University College

Other Academic Programs

Division of Labor Studies

Department of Military Science

University Administration

Residency

Index

Academic Calendars

Campus Map

INDIANA UNIVERSITY - PURDUE UNIVERSITY INDIANAPOLIS

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CAMPUS BULLETIN 2002–2004

IUPUI

INDIANA UNIVERSITY–PURDUE UNIVERSITY INDIANAPOLIS



www.iupui.edu

Indiana University–Purdue University Indianapolis is accredited by the Higher Learning Commission and a member of the North Central Association (NCA), www.ncahigherlearningcommission.org; (312) 263-0456.

While every effort is made to provide accurate and current information, IUPUI reserves the right to change without notice statements in this bulletin concerning rules, policies, fees, curricula, courses, or other matters.

A hard copy of this bulletin is available upon request.

Contents

4 Introduction to IUPUI	14 Nontraditional Scheduling Options	20 Grade Replacement Policy
4 History	14 Distance Learning	20 Auditing a Course
4 IUPUI Mission Statement	14 Internet and Online Courses	20 Forgiveness Policy
4 A Brief Overview of IUPUI	14 Off-Campus Sites	20 IUPUI Forgiveness Policy (abbreviated version)
4 The IU and Purdue Systems	14 Correspondence Courses	20 Dropping or Adding Classes (Schedule Adjustments)
4 IUPUI	14 Indiana College Network (ICN)	21 Refunds for Dropped Courses
4 University College	14 Western Governors University	21 Petition for Change of Grade
4 The Schools	14 Fees	21 Repeating Courses
4 The Columbus Campus	15 University College: Gateway to IUPUI in the First Semester	21 Confidentiality and Access to Student Records
5 Types of Programs Available at IUPUI	15 Partnership for Academic Excellence	21 Access
5 Undergraduate Certificate Programs	15 Time on Task (Absence Policies)	21 Right to File a Complaint
5 Associate's Degree Programs	15 The Early Warning System	21 Confidentiality and Disclosure
5 Bachelor's Degree (Baccalaureate) Programs	15 The Learning Center/Academic Assistance	21 Parental Access to Student Records
5 Postbaccalaureate Degree Programs	15 Supplemental Instruction Program	21 Availability of Public Information
5 Master's Degree Programs	15 Tutoring	22 Restraint of Release of Student Information Form
5 Doctor of Philosophy and Education	15 Resource Center	22 Disclosures
5 Professional Degrees: D.D.S., J.D., M.D.	15 The Ideals Underlying an IUPUI Undergraduate Education	22 Zachary's Law
5 Graduate-Level Certificate Programs	15 Principles of Undergraduate Learning	22 Technology Access, Security, and Use
5 Noncredit Courses	16 Active Learning: Research and Apprenticeships	22 IU Policies on Equal Opportunity/Affirmative Action
5 Undergraduate Degree Programs	16 Linkages	23 Special Academic Opportunities
5 Admission Types and Requirements	16 Civility	23 Special Credit Opportunities (Waivers and Credit)
6 Freshmen Students	16 Certification from University College to Degree-Granting Schools	23 Special Credit for Military Service
6 Adult Special Students	16 Selecting a Major	23 Advanced Placement (AP) Credit
7 SPAN Program	16 Additional Options Available	23 CLEP Credit
7 Transfer Students	17 Double Majors	23 DANTES Credit
8 Visiting Students	17 Dual Degrees	23 Department or School Proficiency Examinations
8 International Students	17 Minors	23 Special Credit for English W131
8 Financial Aid	17 Certificates	23 Special Credit for Foreign Languages
8 Types of Financial Aid	17 Second Undergraduate Degrees	23 Self-Acquired Competency Credit (Experiential Learning)
8 Eligibility	17 Changing Units	23 Consortium for Urban Education (CUE)
9 How to Apply for Financial Aid	17 Admission into Degree-Granting Programs from University College	23 Honors Program
9 Checking on Status of Financial Aid	17 Admission into Capped (Limited Enrollment) Programs	23 The IUPUI Undergraduate Honors Program: Philosophy/Requirements
9 Aid for Graduate and Professional Students	17 The 56 Credit Hour Rule	23 Participation in Honors
10 Scholarship Information	17 Procedures for Changing Schools/Programs at IUPUI	24 Freshmen
10 General Information	17 A Temporary Change of Campus	24 Continuing Students
10 Freshman Scholarship Opportunities	17 Student Responsibilities	24 Honors Students and Bachelor's Degrees
10 Admission-based Scholarships	18 Graduation Requirements	24 Honors Associate's Degrees
10 Competitive Scholarships	18 Applying for Graduation	24 Departmental or School Honors Programs
11 Continuing Student Scholarships	18 Completion of Degree Requirements	24 Honors Scholarships
11 One Million Dollars in Scholarships from External Sources	18 Required Grade Point Average	24 Honors Club
12 Placement Testing	18 Academic Policies and Procedures	24 School Honors
12 Testing for Students Whose Native Language Is Not English/ESL Placement Testing	18 Grading System	24 Dean's Lists
12 Accommodations for Placement Testing	18 A+ through F	24 Graduation with Distinction (IU And PU Versions)
12 Cost for Placement Testing and External Tests	18 Grades of I and IX (Incompletes)	25 University College Honoraries
12 Orientation—New Student Connections	18 Grades of P/F (Pass/Fail) at the Undergraduate Level	25 Discipline-Based Honoraries
12 Advising	19 Grades of S/F (Satisfactory/Fail)	25 Undergraduate Research Programs
13 Preparing for Advising Sessions	19 Grades of R (Deferred)	25 Service Learning Classes
13 Elements of an Undergraduate Degree	19 Grade Appeals	25 Reserve Officers' Training Corps (ROTC)
13 Scheduling Tools and Information	19 Semester and Cumulative Grade Point Average (GPA)	25 Army ROTC
13 Developmental or Refresher Course Work	19 Class Standing	25 Air Force ROTC
13 First-Year Seminars or Learning Communities	19 Semester Credit Hour Load	
13 General-Education Requirements/Introduction to Majors	19 Course Loads and Work	
13 Undecided and Exploratory Options	19 Academic Probation	
13 Registration	19 Dismissal	
14 Waitlisting	20 Readmission	
14 Enrollment Authorizations and the Checklist		
14 Schedule Adjustments (Dropping and Adding Classes)		

- 25 **IUPUI Internship Program**
- 25 **Study Abroad Programs**
 - 25 IUPUI Study Abroad Opportunities
 - 26 Indiana University Study Abroad Programs
 - 26 Purdue University Study Abroad Opportunities
- 26 **Requirements for Admission to the Undergraduate Program—School of Education**
 - 26 Admission to the Teacher Education Program
 - 26 Teacher Certification
- 26 **Pre-Professional Programs**
 - 26 Pre-Medical Program
 - 26 Pre-Dental, Pre-Veterinary, Pre-Optometry Programs
 - 26 Pre-Pharmacy Program
 - 26 Pre-Law Program
- 27 **Commitment to Writing**
 - 27 Writing Across the Curriculum/Office of Campus Writing
 - 27 University Writing Center
 - 27 Technical Writing Center
- 27 **Graduate and Professional Programs**
- 27 **Purdue Graduate Programs in Engineering**
- 28 **Graduate Programs in the School of Science**
- 29 **Indiana University Graduate Programs**
- 30 **Graduate Non-Degree Students**
- 30 **Housing**
- 30 **Parking and Transportation**
- 31 **Center for Young Children**
- 31 **Counseling and Psychological Services (CAPS)**
- 31 **Career Information and Job Placement (IUPUI Career Center)**
 - 31 IUPUI Career Center
 - 31 Career Resource Library
 - 31 IUPUI Student Employment: JOBS Program
 - 31 IUPUI Student Employment: Work-Study Program
- 31 **Student Health Center**
- 31 **Health Insurance Programs**
- 32 **Adaptive Educational Services (AES)**
- 32 **Veterans Affairs**
- 32 **Office of International Affairs**
- 32 **Student Services**
- 32 **Office of the Dean of Students**
 - 32 Dean of Students
- 32 **The Ombudsperson**
- 32 **Office of Student Life and Diversity Programs**
- 32 **Co-Curricular Opportunities and Activities**
 - 32 Undergraduate Student Assembly (USA)
- 32 **School Councils**
- 33 *Sagamore* and Literary Publications
- 33 IUPUI Clubs and Organizations
- 33 Greek Life
- 33 Religious Activities and Groups
- 33 Intramural and Recreational Sports
- 33 Multicultural Clubs and Activities
- 33 Graduate Student Organization
- 33 **Student Photo Identification Cards (IUPUI OneCard)**
- 33 **Campus Resources**
- 33 **Libraries**
- 34 **Computers on Campus**
 - 34 University Information Technology Services (UITS)
 - 34 The Support Center
 - 34 Student Technology Centers and Consulting
 - 34 UITS IT Training & Education
 - 34 Student Network ID and ADS Domain Account
 - 34 IUware and MSEL A CDs
- 34 **Bookstores**
- 35 **Office of the Bursar**
- 35 **Art Galleries and Museums**
 - 35 The Herron Gallery
 - 35 The IUPUI Cultural Arts Gallery
 - 35 The National Art Museum of Sports
 - 35 Other Community Resources
- 35 **The Center for Service and Learning**
 - 35 Office of Service Learning
 - 35 Office of Community Service
 - 35 Office of Neighborhood Resources
- 35 **Indiana Campus Compact (ICC)**
- 36 **IUPUI Alumni Association(s) and Student Organization for Alumni Relations (SOAR)**
- 36 **Special Campus Events: IUPUI's Traditions**
 - 36 Intercollegiate Athletics—Division I
 - 36 Team IUPUI
 - 36 Student Activities Fair, Volunteer Fair, Ice Cream Social
 - 36 Career Fairs
 - 36 Explore IUPUI and Campus Day
 - 36 Chancellor's Honors Convocation
 - 36 Getting News and Information
 - 36 United Way Day of Caring
 - 37 Graduation
 - 37 IUPUI Spring Celebration Dance
 - 37 Martin Luther King Jr. Day
 - 37 Bookmarks
 - 37 Student Activities Honors Reception
 - 37 International Holiday Celebration and Related Events
 - 37 The Moving Company at IUPUI
- 37 **Code of Student Rights, Responsibilities, and Conduct**
 - 37 Academic Misconduct
 - 38 Personal Misconduct
 - 38 Complaints Against Faculty, Staff, and Students
 - 38 Disruptive Conduct
- 38 **Safety**
 - 38 Escort Service
 - 38 Safety Hazards
 - 38 Drug-Free Environment
 - 39 IUPUI Police Cadet Program
- 41 **Schools**
 - 41 IU School of Allied Health Sciences
 - 89 IU Herron School of Art
 - 111 IU Kelley School of Business
 - 137 IU School of Continuing Studies
 - 147 IU School of Dentistry
 - 153 IU School of Education
 - 171 Purdue School of Engineering and Technology
 - 227 Graduate Programs
 - 237 IU School of Informatics and IUPUI New Media Program
 - 255 IU School of Journalism
 - 273 IU School of Law—Indianapolis
 - 277 IU School of Liberal Arts
 - 353 IU School of Library and Information Science
 - 367 IU School of Medicine
 - 371 IU School of Music
 - 377 IU School of Nursing
 - 409 IU School of Optometry
 - 413 IU School of Physical Education
 - 424 PU Department of Tourism, Conventions, and Event Management
 - 433 IU School of Public and Environmental Affairs
 - 473 Purdue School of Science
 - 537 IU School of Social Work
- 553 **University College**
- 561 **Other Academic Programs**
 - 562 Division of Labor Studies
 - 569 Department of Military Science
- 577 **Indiana University—Purdue University Columbus**
 - 585 Rules Determining Resident and Nonresident Student Status for Indiana University Fee Purposes
- 587 **Index**
- 592 **Campus Calendar for 2002-2007**

Introduction to IUPUI

History

Founded in 1969, IUPUI is an urban campus with the dynamic flavor of a metropolitan city of 1.4 million. The campus is just west of downtown Indianapolis, within walking distance of the state capitol and other governmental offices, and the site of numerous businesses, art, sports, education, and health facilities.

IUPUI is one of eight campuses of Indiana University and includes two Purdue University schools. The campus offers 180 degrees provided by 20 different schools. Its over 27,000 students represent 49 states and 122 countries. Approximately 20,000 of these students are undergraduates, with about an equal mix of traditional and adult students. Undergraduate students annually use more than \$61 million dollars in financial assistance as they juggle jobs, families, community service, and academic pursuits. Each year some 4,000 students earn IU or PU degrees.

IUPUI includes the only medical and dental schools in the state, the nation's largest nursing school, and the country's oldest school of physical education. IUPUI is among the nation's ten largest sites for graduate professional education. With strong traditions in professional education, IUPUI is simultaneously developing new strengths in interdisciplinary inquiry, linking disciplines with professions in ways that advance research, professional service, and learning. With external support of about \$130 million in the past fiscal year, IUPUI is the second largest site for research in Indiana. With more than 3,000 full-time, tenured, or tenure-track faculty and 800 associate faculty, IUPUI is proud of its teaching record and works to improve its teaching with on-going assessment and professional development. The creation of the state-wide community college system will redefine IUPUI's undergraduate mission. One result will be that IUPUI will offer little or no remedial work. Rather, building on its prior partnerships and articulations with Ivy Tech State College and Vincennes University, IUPUI will continue to expand its strategies for ensuring smooth transitions between the two-year institutions and IUPUI. IUPUI aspires to be a model for urban universities nationally as well as internationally.

IUPUI is accredited by the Higher Learning Commission of the North Central Association. Individual school and academic programs are also accredited. For example, the Kelley School of Business and the School of Engineering and Technology programs are accredited by the American Assembly of Collegiate Schools of Business (AACSB) and the Accreditation Board for Engineering and Technology (ABET), respectively.

IUPUI has over 105,000 alumni living worldwide and an expanding and active alumni relations program to serve the growing IUPUI campus. Over 70,000 alumni live in Indiana, with two-thirds of that number in the Indianapolis area. The rest are spread around the

world with strong contingents in far-flung places such as Malaysia.

Indiana University—Purdue University Columbus, created in 1970 (one year after the creation of IUPUI), is located one hour south of Indianapolis in the sophisticated, yet rural, town of Columbus, Indiana. This well-known town has been called an “architectural mecca,” boasting the exciting works of numerous internationally known architects. IUPUI Columbus is administratively and academically linked with IUPUI. All IUPUI Columbus faculty are part of their related departments in Indianapolis. There are 35 full-time faculty, who are highly regarded both nationally and internationally, and 162 adjunct faculty. Both full-time and adjunct faculty teach at the Columbus campus and at its off-campus locations, including Batesville, Franklin, Greensburg, Madison, Seymour, Shelbyville, and St. Leon. These sites are located in the 12-county service area of IUPUI Columbus, including the counties of Bartholomew, Brown, Dearborn, Decatur, Jackson, Jennings, Johnson, Ohio, Ripley, Scott, Shelby, and Switzerland.

Nearly 1,900 students are enrolled at IUPUI Columbus. Fifty-five percent of the student body is traditional, and 69 percent attend part time. IUPUI Columbus offers the advantage of affordability and small class size (average student-instructor ratio of 18:1), along with the high quality students would expect at any IU or Purdue campus.

For Columbus-specific information relating to admission, registration, financial aid, scholarships, placement testing, academic advising, orientation, and student activities, see the IUPUI Columbus section later in this bulletin.

IUPUI Mission Statement

The MISSION of IUPUI is to provide for its constituents' excellence in

- **Teaching and Learning**
- **Research, Scholarship, and Creative Activity**
- **Civic Engagement: Locally, Nationally, and Globally**

with each of these core activities characterized by

- **Collaboration** within and across disciplines and with the community,
- A commitment to ensuring **diversity**, and
- Pursuit of **best practices**

A Brief Overview of IUPUI

In order to use this bulletin, it is critical that the reader understand IUPUI's structure, policies, rules, and procedures and how these factors affect specific students at different points in their career at IUPUI.

The IU and Purdue Systems

IUPUI is a part of two great public university systems—Indiana University and Purdue University—and offers approximately 180 degree programs, the greatest number and widest range of degrees in the

state of Indiana. They range from two-year associate's degrees and certificates to Ph.D.s and professional degrees. All degrees bear either the IU or Purdue designation. Students are, therefore, affected by policies of Indiana University, Purdue University, or both. Such university-wide policies and procedures are set by either the trustees or the faculty with trustee approval.

IUPUI

In many areas, especially at the undergraduate level, IUPUI sets its own policies and procedures, which are known as campus policies and procedures. Both university and campus policies and procedures appear in the opening sections of this bulletin.

University College

Undergraduates are admitted to IUPUI through University College, which was created to help students make a successful transition to college life and select an area of study. University College provides orientation, first-year seminars, and advising for entering students. Students who meet entry-level requirements, and who have indicated their desire to enter a school that accepts first-year students, are simultaneously admitted to a school (dual admission). Once dual admission students complete the first six weeks successfully, they are certified to the appropriate schools. Other students remain in University College until they meet the admission requirements for their field of study or complete 56 credit hours of course work.

The Schools

Fields of study or disciplines are housed in schools at IUPUI. School policies and procedures govern all the students within each school. Most fields of study are housed in departments within the schools, but in some schools they may be called other things, such as divisions. The departments and schools themselves determine degree requirements and whether students are eligible to receive a degree. Students must be in a school and take a specific number of courses (residence requirements) to be eligible for a degree. A current list of degree programs appears online at www.iupui.edu/academic/schooldegrees.htm.

Sections later in this bulletin cover each school in alphabetical order. The material includes general school policies and procedures, followed by school and then specific degree requirements for all the degrees offered by the school including associate's, bachelor's (or baccalaureate), master's, and doctoral degrees. Special teacher certification and honors information is also included where relevant. This material is followed by course descriptions. There is also a list of full-time faculty in the department or program. More information on individual faculty is available in a comprehensive listing of full-time faculty at the end of each school section.

The Columbus Campus

For Columbus-specific information relating to admission, registration, financial aid, scholarships, placement testing, academic advising, orientation, and student activities, see the IUPUI Columbus section later in this bulletin.

Types of Programs Available at IUPUI (Degree and Noncredit)

Undergraduate Certificate Programs

Certificate programs resemble minors but generally require more credit hours. Some certificate programs are stand-alone programs, which means that a student does not have to be working toward a two- or four-year degree to complete a certificate program. Specific requirements can be found in the section for the school offering the certificate.

Associate's Degree Programs

Some schools award an associate's degree after the completion of two years of full-time college course work. IUPUI offers a wide variety of associate's degree programs, some in technical fields. Usually the course work completed for the associate's degree will count toward the bachelor's degree in the same discipline.

Bachelor's Degree (Baccalaureate) Programs

The typical undergraduate degree program is either a bachelor of science or a bachelor of arts degree. The degree takes four years for full-time students, and substantially longer for part-time students. IUPUI's bachelor's degrees are awarded in the professional schools and within the arts and sciences.

Postbaccalaureate Degree Programs

IUPUI has two types of postbaccalaureate degree programs: graduate and professional. Many of the professional schools have separate bulletins as well as brief sections in this bulletin.

Master's Degree Programs

Outstanding students wishing to continue their education may begin graduate work after the completion of their bachelor's degrees. Most master's degree programs require applicants to take standardized national examinations such as the Graduate Record Examination (www.gre.org) and apply for the program the spring prior to admission. The graduate program in business requires students to take the GMAT (www.gmat.org) as part of the admission process. Most students continue to study in their undergraduate major field. Students wishing to switch fields may be required to take undergraduate course work as preparation for admission to a

master's program, which presumes prior preparation in the area of study. Generally master's work is more narrowly focused, and degrees require one to two years of full-time study. Some graduate programs may be taken on a part-time basis.

Doctor of Philosophy and Education

The doctorate is the highest degree awarded and requires course work, comprehensive examinations, original research, and a dissertation. Three years of study beyond the master's is minimal, and most students require more time to complete the course work and research.

Professional Degrees: D.D.S., J.D., M.D.

IUPUI offers professional degrees in dentistry, law, and medicine. All these degrees require prior study at the bachelor's level as a condition for admission to the program.

- A). The Doctor of Dental Surgery (D.D.S.) requires four years of professional study beyond a minimum of 90 semester credit hours of undergraduate study, which includes pre-dental courses, or the equivalent of 90 semester credit hours.
- B). The Doctor of Jurisprudence (J.D.) requires three years of full-time study or four years of part-time study following a bachelor's degree. Those wishing to practice law must also successfully sit for the Indiana Bar Examination. LSAT (Law School Admission Test) results are required as part of the application process. Visit www.lsatsat.org for more information.
- C). The Doctor of Medicine requires four years of professional study following a bachelor's degree, which includes the pre-medicine courses. Medical College Admission Test (MCAT) (www.aamc.org) results are required prior to admission into the program.

Graduate-Level Certificate Programs

Graduate-level certificate programs, often in professional areas of specialization, resemble minors but generally require more credit hours. Some certificate programs are stand-alone programs, which means that a student does not have to be working toward a graduate degree to complete a certificate program. Only courses in which students receive a C (2.0) or better can be applied to the certificate program. Specific requirements can be found in the section for the school offering the certificate.

Noncredit Courses

The Community Learning Network (CLN) offers hundreds of continuing education (noncredit) classes and serves over 16,000 learners annually. With more than 25 noncredit certificate programs in areas as diverse as photography and stress management, CLN's noncredit program helps learners to take the first step in career development. These courses provide educational opportunities for a lifetime of learning. Visit the Community Learning Network Web site (www.cln.iupui.edu) to find out more about noncredit offerings.

Undergraduate Degree Programs

Admission

The best and most complete information on admission standards and procedures is the *IUPUI Beginning Freshman Admissions Guide and Financial Aid Information* booklet or the *Transfer and Visiting Student Admissions Guide and Financial Aid Information* booklet, which are published annually and contain an application form, fee schedules, detailed instructions, numbers to call, and the relevant deadlines. The Enrollment Center's Web site also provides information about admission for undergraduates and graduates, financial aid information, and links to other key offices' Web sites. Applicants may complete an application for admission online (www.enroll.iupui.edu).

Zachary's Law

The state of Indiana maintains a registry of individuals who have been convicted of sex offenses committed against minors. As a number of degree programs and specific courses either prepare students to work with minors or place them in contact with minors as a part of the course, enrollment in those courses or programs is not available to anyone who appears on the Sex Offender Registry. Consult individual school sections to see if appearance on the registry will be a barrier to enrollment.

Criminal Activity Disclosure

IUPUI is committed to maintaining a safe environment for all members of the university community. As part of this commitment, the university requires applicants who have been convicted of any felony or a misdemeanor such as simple battery or other convictions for behavior that resulted in injury to a person(s) or personal property to disclose this information as a mandatory step in the application process. A previous conviction or previous conduct does not automatically bar admission to the university, but does require review. For more information contact the Office of Admissions.

When to Apply

You may apply as early as one year in advance of your proposed enrollment.

If you file an application with all required credentials and the application fee by the priority date, you will receive full consideration for the semester requested. If admitted, you will be invited to an early orientation program during which you will register for classes. If you file an application after the priority date, you will be considered on a space-available basis and if admitted, you will likely attend a later orientation session and register for classes during the last days of registration.

Priority date	Term
June 1	Fall
November 1	Spring
March 15	Summer I
May 1	Summer II

Letters of Admission With the admission letter, students receive information about testing, transfer of credits, and temporary parking permits. All beginning students are admitted to University College, where they attend the University College Orientation program, enroll in a learning community, work with an advisor, and learn about the University College support services such as the Learning Center. The Learning Center ensures a successful transition to IUPUI and to the school offering the desired or yet-to-be-determined major. By indicating a preference on their applications, some students with outstanding high school records will be granted dual admission to the University College and the school offering their desired major. Most transfer students are also admitted to University College and remain there until they complete the necessary prerequisites for their program of study.

Students with Education Outside the United States

If you are a U.S. citizen or a non-citizen with permanent resident, refugee, or asylum status and the last two years of your education were in the United States, you will apply through the Undergraduate Admissions Office. All other prospective students (including U.S. citizens educated outside of the United States) will apply through the office of International Affairs. That office evaluates international educational documents and advises international students on visa matters and cultural adjustment issues. You may contact that office by email at intlaff@iupui.edu, by phone at (317) 274-7000, or you may visit the Web site at www.iupui.edu/oia.

Types of Freshman Admission and Qualifications

IUPUI offers beginning freshmen enrollment as degree-seeking or visiting students. Visiting student status is for only the June term after graduation from high school.

Degree-Seeking Students

If you wish to enter an undergraduate certificate, associate's, or bachelor's degree program, apply as a degree-seeking student (even if you are unsure of which degree program). As a beginning freshman, you must not have not enrolled in any college, business, or vocational school after high school graduation.

For a beginning student, we will examine your high school record including courses completed, grades earned, and standardized test results. The trend in your grades and the difficulty of your courses are also important. The most important factor in our decision will be the courses you attempted and the grades you earned.

High School Graduates Admission Requirements—Regular admission

- Graduated from high school or will graduate before enrolling at IUPUI.

- Provide the results of your SAT or ACT**.
- Indiana high school graduates are expected to complete Core 40. (Academic Honors diploma highly encouraged).

For students who have completed Core 40 with a C average or higher in all Core 40 courses, SAT scores should be 900 or higher or ACT composite of 19 or higher.

For students who have earned an Academic Honors diploma, the applicant will be considered fully qualified regardless of test scores; however, scores must be provided.

- We recommend that all high school students complete the following:
4 years of English
3 years of Math (including second-year Algebra)
3 years of Social Sciences
3 years of lab science
4 years of additional college preparatory courses selected from English, mathematics, social sciences, lab sciences or foreign language.
- Returning adult students should note that SAT or ACT scores are not required and although a high school transcript is required, the admissions committee also considers such things as military experience, life experiences, and job responsibilities when reviewing the application.

Conditional Admission

If you do not meet the above criteria, you will be considered for conditional acceptance based on other factors that will indicate your potential for success at IUPUI: overall quality of your high school course work, work experience, maturity, and military service.

If you have significant deficiencies in either academic preparation or performance, we will defer your acceptance until you complete designated courses at the Community College of Indiana or another two-year college. A deferral contract outlining the courses to complete will be sent to you. Our program with the Community College of Indiana (Ivy Tech State College/Vincennes) at Indianapolis is called *Partners*, and admissions counselors at both schools are prepared to assist you with a program of study leading to transfer to IUPUI.

GED Admission Requirements

Students enrolling at IUPUI who have not attended college after earning a GED are considered beginning freshmen students. The following are the admission requirements:

- Earned the GED.
- If you are under 19 years of age, you must provide the results of an ACT or SAT I test.

Depending on your GED score, you will either be granted conditional admission or deferred to the Community College of Indiana. (See above section on conditional admission.) If you have completed the SAT or ACT and the results are at or above the average for the state of Indiana (990 SAT or 21 ACT), you will be given regular admission.

** (Seniors in high school must take one of these tests.) If your class has graduated and a fall semester has passed since you graduated, you do not need to take the SAT or ACT. (However, if you did take the test, we would like to see the results.)

Visiting students during summer after graduation

Students graduating from high school may enroll at IUPUI as a visiting student for the June summer session. As a student applying under this status, you must do the following:

- Verify with the Admissions Office of the institution you will attend in the fall that they will accept the course credits.
- Submit an IUPUI application as a visiting student.
- Submit a copy of your high school transcript and test scores. (Students admitted to IU Bloomington or Purdue West Lafayette are excused from this requirement.)
- Submit a copy of your letter of acceptance.
- Submit the application fee. You do not need to pay this fee if you previously applied to an IU campus; simply attach a note saying when and where you previously paid the fee.
- Note:
 1. You are not eligible for financial aid as a visiting student. (federal regulations)
 2. If admitted, you must complete IUPUI placement tests in reading, writing, and mathematics. These must be done before you can register for classes.
 3. You may apply only for the June semester and you are encouraged to do this no later than the end of May.

Qualifications

1. If you will attend IU Bloomington or Purdue West Lafayette in the fall, provide a photocopy of your letter of acceptance. A high school transcript is not necessary. You will be offered acceptance based upon proof of your acceptance to either campus.
2. If you are attending any other college in the fall, provide a high school transcript and SAT/ACT scores. Also provide a copy of your letter of acceptance. You must have completed Core 40 with a 2.0 grade point average and have an SAT total score of 900 or ACT composite of 19. If you will earn the Academic Honors diploma, you will be accepted regardless of SAT or ACT scores but you are required to provide the scores.

Adult Special Students

You may apply as an adult special student if you are sponsored by your employer to enroll in a specific IUPUI course or you wish to take a course for self-enrichment. You are strongly encouraged to discuss your plans and previous education with an admissions counselor before filing an application. Permission to enroll is usually for one term.

You are not eligible for financial aid as an adult special student.

If you wish to enroll in mathematics or English courses, you must either have completed a transferable (non-remedial) college course in that academic area or complete the IUPUI placement tests.

Required Credentials and Qualifications

- You must be 21 or older.
- You must provide a photocopy of your diploma, high school transcript, or GED results.
- If you previously attended college, you must not have enrolled anywhere for the past three years and you must provide photocopies of grade reports or a college transcript.
- If you are being sponsored by an employer and you are not able to obtain the above documents, you may submit a letter of sponsorship from your employer.
- Provide a brief statement about your purpose for becoming an adult special student and the course(s) you plan to take.

SPAN Program

High school students who are academically motivated and wish to attend college are invited to investigate the Special Programs for Academic Nurturing (SPAN), a division of the IUPUI Honors Program.

SPAN allows qualifying pre-college age students to take actual college courses alongside college students. Unlike "Advanced Placement" programs that are taught at the high school by high school teachers, SPAN students attend classes taught by university faculty on the IUPUI campus.

Developed in 1984, the SPAN program is designed to help motivated students either get a head start on their college education or take courses that are not offered at their high schools. Qualifying students are eligible to take any 100- or 200-level course (ranging from anthropology to zoology). For more information, contact the IUPUI Honors Program, SPAN Division, (317) 274-2660.

Types of Transfer Admission and Qualifications

Transfers from Other IU Campuses Students who are eligible to transfer to IUPUI as degree candidates from another campus of Indiana University must meet the degree requirements of the IUPUI school from which they expect to graduate. Students who plan to obtain a degree from another campus should contact and remain in contact with the dean of their prospective school for specific information on course, degree, and residency requirements.

A student at another Indiana University campus, whether coming to IUPUI on a temporary or permanent basis, should contact the IUPUI Enrollment Center for help in beginning the intercampus transfer process.

If a student has earned college credits after leaving the IU campus, the student must provide an official transcript and contact the IUPUI Admissions Office, requesting that the new courses be evaluated for transfer credit.

If a student at another Indiana University campus is not in good standing and wishes to attend IUPUI, he or she should contact the IUPUI Enrollment Center for an explanation of the procedures.

Transfers from Other Purdue Campuses A Purdue University student from another campus must complete an official undergraduate application through the IUPUI Office of Admissions. If credits have been earned outside of Purdue, an official transcript from the non-Purdue schools must be provided. An application fee does not need to be paid.

Note: Courses with grades from C– to D– from other Purdue campuses appear on the IUPUI transcript. The grades are not calculated in a student's IUPUI GPA; however, individual schools and programs may choose to use the courses to satisfy degree requirements.

Transfers from Other Universities A student from any other college or university must complete an official undergraduate application through the IUPUI Office of Admissions. Applicants are required to provide official transcripts from all post-secondary institutions they have attended.

IUPUI has increasing numbers of articulation agreements with Ivy Tech—Community College of Indiana that permit Indianapolis Ivy Tech and Vincennes courses to transfer to IUPUI and IUPU Columbus if completed with a grade of C or better. Effective dates for each course are listed, but no courses completed prior to the fall 1990 semester will transfer. Students who have completed course work at Ivy Tech campuses other than Indianapolis should check with the nearest IU or Purdue campus for information regarding course transfers, or visit the transfer student portion of enroll.iupui.edu.

Transfers from Universities with Articulation Agreements IUPUI has increasing numbers of special agreements or articulations with other institutions of higher education to assist students in completing their education.

IUPUI has special transfer agreements with the Ivy Tech—Vincennes Community College of Indiana (Indianapolis campus) through a program called **Passport**. Currently, there are 24 associate-to-bachelor degree options and more than 180 transferable courses between Ivy Tech and IUPUI. There are associate-to-bachelor degree articulations for the eight concentrations that Vincennes offers at the Community College and more than 70 transferable courses. The number of transfer courses and programs is increasing yearly. For the latest lists, visit the **Passport** Web site: www.iupui.edu/~ivy.

In addition, students who have completed a Vincennes associate degree in American Sign Language may transfer as juniors to the IUPUI B.S. in American Sign Language/English Interpreting. Ivy Tech graduates with an associate degree in Respiratory Care from any Ivy Tech statewide may transfer as juniors into the B.S. in Respiratory Therapy program. The Purdue School of Engineering and Technology also has agreements for 15 program articulations with Vincennes.

IUPUI offers transfer students two categories of undergraduate admission: degree-seeking and visitor.

Degree-Seeking Students

If you wish to enter an undergraduate certificate, associate's, or bachelor's degree program, you will apply as a degree-seeking student (even if you are unsure of which degree program).

Admissions Standards General Policy — For regular admissions you must have a cumulative grade point average of 2.0 on a 4.0 scale and be eligible to return to your previous college. *If you do not have a 2.0 or you are not eligible to return to your former school, you must sit out for one regular semester**.* Summer sessions do not count. If you have been dismissed twice, you must be out of school for two full semesters. Please mail a statement with your application explaining what caused the low grades and how you will approach your studies at IUPUI.

Admission on Probation If your grade point average is below 2.0, you will be considered for admission on probation provided you have met or are meeting the required time out of school. In some cases students below a 2.0 will be required to file a petition and perhaps an interview. After reviewing your application, the Undergraduate Admissions Office will advise you if you must take these steps. We encourage you to apply at least three months in advance of your proposed starting date.

Credentials needed:

- Official** college transcript from every college attended.
An official copy is one that has the embossed or raised seal of the school. Fax copies, photocopies, and grade reports are not considered official.
- High school transcript or GED if you have fewer than 26 hours of transferable work. (We will accept a faxed high school transcript provided it is sent directly from the high school with the school fax number on the faxed pages.)

Please note that you are responsible for mailing the request to your former colleges and paying whatever fee is charged. Purdue students and Ivy Tech Indianapolis students do not have to order transcripts; however, if you have attended other colleges, you must request those transcripts.

Transfer Credit The grades from all course work previously completed are considered in the admission process.

Most schools require a minimum GPA of 2.0 to be considered for admission; some schools have a higher GPA requirement. Other factors may also be considered, including space available in the program, the specific course work completed, recent grades, and disciplinary standing.

However, whether those courses are counted in a student's IUPUI GPA depends on where the courses were taken. Course work taken at another Indiana University campus will be counted in a student's IUPUI GPA. IUPUI students in Purdue University programs who have previously taken course work at

**Purdue students are exempt from this policy unless they are on drop status or are required to sit out one semester.

another PU campus may have those grades counted toward their IUPUI GPA. Contact specific schools or look at their material in this bulletin for more information.

If the work was completed elsewhere, only courses with grades of C (2.0) or better are transferred for possible use toward an IUPUI degree. No courses with grades of C– or lower will transfer to IUPUI. None of the grades transferred from other colleges or universities count in the IUPUI grade point average. Some schools, however, may consider such grades for admission purposes and other academic matters.

Acceptance of credit from other accredited institutions, including Purdue University, is performed by the IUPUI Office of Admissions, Cavanaugh Hall, Indianapolis, IN 46202-5143, (317) 274-4591.

How accepted credit is applied to program requirements is determined by the school and/or department that offer the course(s). Courses that were completed 10 years ago or even more recently may not be accepted in some programs and must be approved by the individual school and department awarding the degree.

Course work taken at another institution for which there is an equivalent Indiana or Purdue University course (in terms of course description, level, and prerequisites) will generally be transferred as credit in the equivalent courses. Other course work will be transferred as undistributed and reviewed by the appropriate department or school to determine how it will be counted toward degree requirements. In addition, the university does not accept the transference of special credit by examination awarded by another college or university.

Courses taken at another institution on a quarter system rather than a semester system will be evaluated as carrying fewer credit hours (e.g., a 3 credit hour course taken on a quarter system will transfer as 2 credit hours). Many course equivalences for most Indiana colleges may be found on the IUPUI admissions Web site at enroll.iupui.edu.

Courses taken at foreign institutions will be transferred into IUPUI as undistributed credit rather than as specific courses. In general, the international admissions evaluator will designate the credit as either lower-division course work with a 100 number or upper-division with a 300 number, though if it is clear that the course work warrants a 200 or 400 number, such designations will be used. If students want courses to count for specific classes, they must obtain an official translation of the course description and any other material, such as a syllabus, that explains the course content. With that material, the department offering the course can determine whether there is an equivalent IUPUI course. An individual within each department or school will be responsible for making the determination and informing the Office of International Affairs, using the Undistributed Transfer Credit Departmental Evaluation Form. Subsequently, the appropriate changes will be made on the student's official transcript.

Visiting Students

If you are working on a degree from another institution and wish to take courses at IUPUI, apply as a visiting student. You are responsible for verifying that your home institution will accept the course credits. Your permission to enroll is for one term; however, an admissions counselor can authorize enrollment for additional terms if you are completing your final courses for a degree or if you are in the area on an internship or co-op program. *You are not eligible for financial aid as a visiting student.*

If you wish to enroll in mathematics or English courses, you must either have completed a transferable (non-remedial) college course in that academic area or you must complete the IUPUI placement tests.

Special Note to Students at Other IU Campuses

Students working on degrees at other IU campuses who wish to register for courses at IUPUI should call the IUPUI Office of the Registrar, 317-274-1512, to schedule a registration time.

Required Credentials and Qualifications

- Must be a current college student (enrolled within the last 12 months). If you have not enrolled within the past 12 months, provide a letter from either the dean or your academic advisor at your home institution stating that you have permission to transfer credits from IUPUI to the degree program.
- Provide a photocopy of your most recent grade report or transcript.
- Have a cumulative grade point average of at least 2.0 on a 4.0 scale. (Purdue students are eligible regardless of grade point average provided they are not on drop status.)

International Students

The best guide to international admission standards and procedures is the "International Undergraduate Application for Admission." This pamphlet is revised annually and contains an application form, financial support agreement form, estimated tuition and living expenses, English language proficiency requirements, detailed instructions, numbers to call, and relevant deadlines. The Office of International Affairs' admissions Web site (www.iupui.edu/oia) provides information on admissions for international undergraduates and graduates, links to the online applications, downloadable and printable application and financial support agreement forms, and links to Web sites of other offices.

The admission requirements for students hoping to enter an associate's, a bachelor's, or a certificate program as either a beginning or a transfer student are described below. Depending upon the admission requirements of their desired majors, students will be considered either for admission to University College or for dual admission to University College and the school of their intended major. Regardless of the admission category, beginning undergraduate students and most undergraduate transfer students will have the benefit of the University College Orientation program, advising, and support services as part of a comprehensive orientation program

coordinated for international students by the Office of International Affairs. The goal of these programs is to ensure a successful transition to IUPUI and to the school offering their desired or yet-to-be determined major.

Beginning undergraduate applicants should have completed the primary and secondary education system of their own country. The U.S. primary and secondary education system consists of 12 years of study. IUPUI expects that applicants from other countries will have studied for a similar number of years in primary and secondary school to be eligible for university admission. Pre-primary education is not included in this total number of years. However, applicants from countries with at least 11 standard years in the primary and secondary system may be considered if they have achieved a strong academic record and can submit the final, official school-leaving certificate. Applicants applying from abroad are expected to have reached their 18th birthdays no later than the end of their first semester of study here. Applicants from countries with more than 12 years of primary and secondary study may qualify for advanced standing.

Secondary school programs should have included study of a student's native language, English or other foreign languages, mathematics, natural and/or physical science, humanities, and social sciences. Applicants from British-style systems must have earned at least six GCSE (General Certificate of Secondary Education)—or their equivalents—0-level passes, including passes in English and mathematics. GCE (General Certificate of Education) Advanced A-level results may be considered to yield credit for advanced standing where the grade earned is D or better. Students with 0-level certificates who do not meet the minimum age requirements are encouraged to continue their studies to earn A-level certificates prior to applying to IUPUI.

Financial Aid

Types of Financial Aid

Financial aid at IUPUI is based on financial need, enrollment status, and academic progress. The Office of Student Financial Aid Services (OSFAS) administers federal, state, university, and private funds. Funds are available in the form of scholarships, grants, fee remission, loans, and part-time employment.

Eligibility

To be considered for most types of aid, students must be accepted for at least half-time enrollment at IUPUI in a degree-granting program or University College. If a student enrolls and later drops classes, the financial aid awards may be changed to the level appropriate to the new enrollment. Students should always check with a financial aid counselor before dropping classes.

Federal regulations require IUPUI to establish and apply reasonable standards of Satisfactory Academic Progress for the purpose of receiving financial assistance. To receive financial aid, a student must maintain a minimum grade point average as outlined below:

<i>Class level</i>	<i>Credit hours completed</i>	<i>Minimum cumulative GPA</i>
Freshman	0-25	1.6
Sophomore	26-55	1.8
Junior	56-85	2.0
Senior	86 +	2.0

In addition to GPA standards, there are policies regarding course enrollment and completion rates, duration of eligibility, repeating classes, and unofficial withdrawals. Special rules apply to transfer and second-degree students regarding the duration of eligibility. Students failing to meet standards of satisfactory academic progress will be placed on financial aid probation and will be required to submit and comply with an Academic Progress Agreement. Students on contract will be eligible only for limited amounts of student loans. If students fail to meet the terms of their contract, they will be denied financial aid until satisfactory progress is achieved. Students may, within 10 days of notification of denial of aid, submit an appeal with documented mitigating circumstances.

Course Enrollment and Completion In addition to GPA standards, students must complete a minimum of 75 percent of the credit hours for which they receive a grade each semester. Example: if students enroll in 12 or more credit hours (full time) they must complete 9 credit hours. Completion of a course for credit requires a grade that indicates students have finished all work for the course during the semester for which assistance was received. Course work grades of A, B, C, D, P (pass), or S (satisfactory) are indicators that meet Satisfactory Academic Progress (SAP). Grades that do not indicate course completion are W (withdrawal), F (failing), and I (incomplete).

Financial Aid Probation Each academic year, the OSFAS will review academic transcripts to confirm that the standards of SAP are being met. Students who have not met the requirements above will be placed on financial aid probation and will be required to complete an Academic Progress Agreement. Once the completed agreement has been returned to the office, financial aid funds will be credited to the students' accounts, if all other eligibility requirements have been met. Students on probationary status will also be limited in the amount of student loan funding they may receive in one semester. Students who have not met the terms of the agreement will be denied financial aid until satisfactory academic progress is achieved.

Duration of Eligibility In addition to meeting the minimum GPA and course completion requirements, a student must also meet the duration of eligibility requirements. Undergraduate students may not exceed 150 percent of the published length of the educational program. All courses in which students receive a grade will be counted toward the duration of eligibility. Grades will include W, F, I, U, S, A, B, C, D, and other grades not listed. Once students have exceeded the 150 percent level of their program, they will no longer be eligible for financial assistance as undergraduate students.

The duration of eligibility is divided into yearly increments. The maximum number of credit hours for which students can receive assistance is as follows:

Freshman	47 credit hours
Sophomore	93 credit hours
Junior	140 credit hours
Senior	186 credit hours

Failure to meet this schedule will result in denial of financial assistance until students complete enough credit hours to advance to the next grade level. Also, failure to meet any of the other SAP requirements may result in loss of financial aid eligibility.

Transfer and Second-Degree Students All transfer credit hours that appear on the academic transcript will be counted towards the duration of eligibility. For second undergraduate degree students, only credit hours that apply toward that degree are counted toward the duration of eligibility.

Repetition of Classes Students who enroll in a class and receive a grade for it more than two times will not receive aid for that class if they enroll a third time. In addition, that course will not be counted in determining the level of enrollment for financial assistance, i.e., full time, three-quarter time, half time.

Unofficial Withdrawals If students receive all grades of F or a combination of all F and W grades, the financial aid office will determine the last date of attendance by a review of the Registrar's records. Financial aid for that term will be re-calculated based upon the date of the unofficial withdrawal and may result in repayment of all grants and loans by students.

Mitigating Circumstances and Appeals If mitigating circumstances affect students' ability to meet the SAP policy, those students are required to submit a detailed explanation of the reasons for poor academic performance. In addition, an academic advisor's recommendation is required. Possible mitigating circumstances are the death of a relative, an injury to or illness of the student, and other special circumstances that can be documented on a case-by-case basis. Appeal forms may be printed from the financial aid Web site (www.iupui.edu/finaid). The form may also be picked up at the OSFAS. **Note:** Being unable to continue attendance without financial assistance is not recognized as mitigating circumstances. Also, appeals must be submitted within 10 working days of being notified that financial aid has been denied.

How to Apply for Financial Aid

To apply for financial aid, students must file the Free Application for Federal Student Aid (FAFSA) or a renewal FAFSA. These forms are available at high schools or at the IUPUI Office of Student Financial Aid Services. A FAFSA is mailed to all Indiana high school seniors and continuing financial aid students should receive a renewal FAFSA in the mail as well. Students are encouraged to submit FAFSA data electronically using FAFSA on the Web (www.fafsa.ed.gov). Computers are available in the Office of Student Financial Aid Services, the Enrollment Center, and

computer clusters on campus. THE PRIORITY DATE FOR FILING THE FAFSA IS MARCH 1. Students should expect to receive a Student Aid Report approximately four weeks after filing the FAFSA.

Students or parents applying for student loans will need to complete a Loan Information Form in addition to the FAFSA. This form should be submitted to the Office of Student Financial Aid Services.

Financial aid award notifications are mailed during the months of April and May.

Checking on Status of Financial Aid

The Financial Aid System Touchtone (FAST) enables students to get information about their financial aid file through the same interactive voice response system used for telephone registration. Students can call (317) 278-FAST (3278) to learn more about the features of the system. One very helpful feature is the Question & Answer track that allows students to leave a voice mail question for a financial aid advisor and call back the following day for the answer. To leave a message, press 1-SSN-3-PIN#-5-1.

Financial aid information and award status also may be obtained online through Insite at insite.indiana.edu.

Financial aid advisors are available on a walk-in basis Monday through Thursday, 8 a.m. to 6 p.m.; Friday, noon to 5 p.m., and 9 a.m. to noon on Saturday.

Students may contact the Office of Student Financial Aid Services by:

Web site: www.iupui.edu/finaid
 Telephone: (317) 274-4162
 FAST: (317) 278-FAST (3278)
 Fax: (317) 274-5930
 Location: 425 University Blvd., Cavanaugh Hall,
 CA 103, Indianapolis, IN 46202

Aid for Graduate and Professional Students

Graduate and professional students must file the Free Application for Federal Student Aid (FAFSA) or a renewal FAFSA to apply for financial aid. These forms are available at IUPUI. Continuing financial aid students should receive a personal identification number (PIN) to allow filing of the renewal FAFSA on the Web. Students are encouraged to submit FAFSA data electronically using FAFSA ON THE WEB (www.fafsa.ed.gov). Computers are available in the Office of Student Financial Aid Services.

Students applying for student loans will need to complete a separate loan information form and other forms available from the Office of Student Financial Aid Services or online at www.iupui.edu/finaid.

The main source of financial assistance to graduate and professional students is through the various loan and part-time employment programs. Students are encouraged to check with their school or program for information concerning scholarships, fellowships, and assistantships available for their particular area of study.

Students are encouraged to contact the Office of Student Financial Aid Services for more information:

Web site: www.iupui.edu/finaid
 Telephone: (317) 274-4162
 Fax: (317) 274-5930

Financial aid counselors are available on a walk-in basis Monday through Thursday, 8:00 a.m. to 6:00 p.m.; Friday, noon to 5:00 p.m.; and 9:00 a.m. to noon on Saturday.

Scholarship Information

General Information

IUPUI offers many unique scholarship opportunities for undergraduate students. These can be categorized as scholarships for beginners and scholarships for continuing students. In addition, individual academic units sponsor separate scholarship opportunities for students in specific programs. We recommend directly contacting the school with your intended major to research other scholarship opportunities. A comprehensive list of scholarships, as well as downloadable applications, are available on the Scholarship Central Web site (www.iupui.edu/~scentral). The Office of Student Scholarships also maintains a scholarship bulletin board in the basement of Cavanaugh Hall across from the IUPUI bookstore. The board is updated weekly with news of private sector scholarships, awards, and grant competitions. For additional information and applications, call the Office of Student Scholarships at (317) 274-5516.

Students receiving scholarships are strongly encouraged to participate in the Honors Program. Participation is only a requirement for the University College Honors, the IUPUI Honors, and the IUPUI Honors Upper-class Scholars scholarships.

Freshman Scholarship Opportunities

Most scholarships for freshmen are based on academic merit, eligibility often being determined by previous academic performance, high school rank, and date of admission to IUPUI. There are a few exceptions. See the comprehensive listings on the Web site for more on these opportunities. Students may qualify for more than one scholarship. Competitive scholarships require applications. Applications are available online from the Scholarship Central Web site (www.iupui.edu/~scentral).

Admission-based Scholarships

IUPUI Academic Excellence Scholarships

\$1,500 annually (Renewable—4 years) Students admitted by April 1, who rank in the top 15 percent of their high school class and have scored 1200 on the SAT or 26 on the ACT (merit qualifications) may qualify for this scholarship. Students must attend full time (minimum 12 credit hours) and maintain a minimum GPA of 3.0 each semester. No application required.

IUPUI Dean's Recognition Scholarships \$1,250 annually (Renewable—4 years) Students admitted by March 1, who rank in the top 25 percent of their high school class with an 1100 SAT or 24 ACT score, may qualify for this scholarship. Students must attend full time (minimum 12 credit hours) and maintain a minimum 2.75 GPA. No application required.

IUPUI Dean of the Faculties Scholarships

\$1,000 annually (Renewable—4 years) Students admitted by March 1, who graduate in the top 40 percent of their high school class with an Indiana Academic Honors Diploma and score 1000 or higher on the SAT or 21 on the ACT, may be eligible for this scholarship. Students must attend full time (minimum 12 credit hours) and maintain a minimum GPA of 2.5 each semester. No application required.

Valedictorian/Salutatorian Scholarship \$3,500 annually (Renewable—4 years) Students admitted by February 1, who are ranked first and second in their high school graduating class and score 1000 or higher on the SAT or 21 ACT, may qualify for this scholarship. Students must attend full time (minimum 12 credit hours) and maintain a minimum GPA of 3.3 each semester. No application required.

Competitive Scholarships

University College Honors Scholars \$1,250 annually (Renewable—2 years) Students who score either 1180 SAT/26 ACT and/or who are in the top 15 percent of their high school class may compete for an honors scholarship. See the application for more information. Applications are available in the Scholarship Office or the Honors Program Office. Honors scholarship recipients may choose to receive a laptop computer rather than a monetary award in the first year. Students must attend full time (minimum 12 credit hours) and maintain a minimum GPA of 3.3 each semester. Admission and scholarship application deadline: March 1.

IUPUI Honors Scholars \$1,250 annually (Renewable—4 years) Students meeting the merit criteria (see above) may compete for an honors scholarship. Applications are available in the Scholarship Office or the Honors Program Office. Honors scholarship recipients may choose to receive a laptop computer rather than a monetary award in the first year. Students must attend full time (minimum 12 credit hours) and maintain a minimum GPA of 3.3 each semester. Admission and scholarship application deadline: March 1.

IUPUI Outstanding Freshman Scholars \$2,500 annually (Renewable—4 years) Students admitted by Feb 1 who meet the merit criteria are invited to apply for this competitive scholarship. Emphasis will be placed on well-rounded students, excelling not only in academics but also in extracurricular activities, leadership abilities and/or community service. See the application for more information. Students must attend full time (minimum 12 credit hours) and maintain a minimum GPA of 3.3 each semester. Admission and scholarship application deadline: Feb 1.

IUPUI Distinguished Scholars \$3,000 annually (Renewable—4 years) Students admitted by Feb 1 who rank in the top 10 percent of their high school class with a minimum 1300 SAT /29 ACT score may compete for this scholarship. Emphasis will be placed on academic excellence but extracurricular activities and community service will also be considered. See the application for more information. Students must attend full time (minimum 12 credit hours) and maintain a minimum GPA of 3.5 each semester. Admission and scholarship application deadline: Feb 1.

New Generation Scholarships \$1,000—Incoming freshmen admitted to IUPUI University College, science, technology, or engineering programs whose immediate family includes no member who has earned a college degree (associate's or bachelor's) can apply. Admission and application deadline: March 1.

Hughes Scholarships \$500-\$750—Students admitted by March 1 with financial need may qualify if they have at least 1100 SAT/ 24 ACT score and are ranked in the top 40 percent of their class. This scholarship is for Indiana residents only. The submission of the FAFSA is required. Application deadline: March 1.

Richard Rapala Scholarship \$500-\$1,000—New beginning students majoring in chemistry, cytotechnology, or nursing are encouraged to apply. Emphasis placed on both academic merit and financial need. Admission and application deadline: March 1.

Mary E. Burns Scholarship \$500-\$2,000—Students from Washington County high schools are encouraged to apply for this scholarship provided from Mary E. Burns' estate. Application deadline: April 1.

Norman Brown Minority Achievers Program \$2,000—Students from racial and ethnic populations who have been historically underrepresented in institutions of higher education in Indiana are encouraged to apply. Eligible applicants must be admitted to IUPUI as a full time student with 1040 SAT / 22 ACT and 3.0 GPA. Admission and application deadline: March 1.

Minority Research Scholars Program Stipends of tuition and \$1,000 for books and supplies are provided to successful candidates who are competitively selected to engage in research in one of seven research fields. Renewals are possible for up to four years if minimum 3.0 GPA is maintained. Contact Professor Marchusa Huff at (317) 274-8049 for more information. U.S. citizens and/or permanent residents only.

Freshman Service Scholarships \$2,000—These scholarships recognize students for exemplary community service, especially while in high school. Entering students meeting regular admission standards are encouraged to apply. Service scholars must be enrolled in at least 9 credit hours per semester and enroll in one service learning class. Call 317-278-2662 for more information.

Zora Neale Hurston—Mari Evans Scholarships \$2,000—In honor of two leading women, this scholarship was created to encourage the study of subjects that transcend gender, race, age, culture, and economic status (such as creative arts including composing and music performance, liberal arts, or social sciences). Deadline April 1.

School of Engineering and Technology Freshman Scholarships \$500-\$3,000—Freshman engineering majors with a strong record of academic achievement, extracurricular activities, and a strong science background with a minimum 1150 SAT are considered for this scholarship. Deadline: March 1.

Dean of Science Scholarships \$2,000—Beginning science majors with strong academic records are encouraged to apply for this competitive scholarship. Students must enroll full time and maintain a 3.5 GPA. Call the School of Science at (317) 274-0625 for more information.

Shared Heritage \$1,000—High school students with a minimum 3.0 GPA applying full-time to Herron School of Art are eligible to apply. Minorities are encouraged to apply. Application and portfolio required. Deadline: March 1.

School of Nursing Scholarships \$1,000-\$1,500—Beginning pre-nursing majors who rank in the top 20% of their high school class are encouraged to apply. Application deadline: March 1.

Sam Masarachia Scholars Program Full tuition and fees (in-state rate only)—New beginning full-time students in liberal arts who are interested in studies related to labor, senior citizens and/or community activism are encouraged to apply. Recipients will participate in Masarachia seminars, internships, and related activities. All finalists will be interviewed and scholars will be selected based on academic merit, financial need, and evidence of commitment to and familiarity with one or more of the above program areas. Deadline: March 1.

Jeff and Susan Vessely Scholarship \$2,000—Incoming physical education majors. Must maintain a 2.5 GPA for renewal. Deadline: March 1.

Bo L. Hagood Scholarship \$500—Incoming freshman majoring in tourism, conventions, and event management. The recipient must be working in the industry (i.e., hotels, tourism, restaurants, or other hospitality and tourism fields) with preference given to a minority student. Deadline: March 1.

Peter J. George Scholarship \$500—Beginning or transfer students admitted to the Department of Tourism, Conventions, and Event Management are encouraged to apply. Deadline: March 1.

Other scholarships are available through various schools and programs to beginning students. Students should check their school or program sections for a list of these scholarships.

Continuing Student Scholarships

Many opportunities exist campus-wide for continuing student scholarships and awards. Below are a few of the continuing student scholarships available. See the Scholarship Central Web site for a more detailed listing with points of contact for various academic unit scholarships and awards.

Challenger Scholarships up to \$2,000—Established in memory of the Challenger crew, this scholarship supports students majoring in sciences, engineering, education, or social sciences, who intend to pursue a teaching career at any level. Call (317) 274-6842 for information. Deadline: Near the end of January.

Assist Scholarships \$500-\$1,000—Created to assist single, custodial parents at IUPUI pursuing their first undergraduate degree to help meet their educational goals. Must have financial need as determined by the FAFSA. U.S. citizens and/or

permanent residents who are also Indiana residents. Other requirements, contact the Office of Student Scholarship for more details. Deadline: Sept. 15.

Robert E. Cavanaugh Memorial Scholarships \$750-\$1,500—Upper-class students of all majors who have graduated from an Indiana high school, who demonstrate leadership abilities, and have some demonstrated financial need are encouraged to apply. Must have at least 26 credits at IUPUI and be currently enrolled. Deadline: Sept. 15.

Frances McCracken Scholarships \$500—Foreign language and single parent students are invited to apply for this award. Essay and interview. Contact the Scholarship Office for more information. Deadline: Sept. 15.

Adult Outstanding Scholarships \$1,000—Motivated adult (30+) returning students with at least 12 credit hours, GPA 3.5 in all courses since returning. Contact the Honors Office at 274-2660 for more information. Deadline: May 1.

Service Learning Scholarship \$3,000—The scholarship recognizes students who have records of exemplary community and university service. Criteria also include completion of at least 15 credit hours at IUPUI and a minimum GPA of 2.75. Students receiving the scholarship enroll in a service learning class and donate six hours of community service each week. Contact the Office of Service Learning at (317) 278-2662.

IUPUI Honors Upper-class Scholars \$1,250 for one year (full time), \$625 for one year (part time)—Talented and motivated students who have demonstrated their academic abilities either by distinguishing themselves in honors courses or by completing at least 12 credit hours with a 3.0 GPA or higher are eligible to apply for this scholarship. Applications are available in the Honors Program Office.

Charles McGaughey Leadership Award \$2,500—Established by Charles McGaughey for upper-class students in the Schools of Business, Liberal Arts, and Science who demonstrate leadership abilities and an appreciation of basic American values. A minimum 3.0 GPA is required. Application deadline: Sept. 15.

Norman Brown Minority Achievers Program Up to \$2,000—Students from racial and ethnic populations who have been historically underrepresented in institutions of higher education in Indiana are encouraged to apply. Eligible continuing students with minimum GPAs of 3.0, enrolled full time may apply for this scholarship. Deadline: March 1.

Staff of Life Scholarship \$2,000—This scholarship is available to full-time professional students in the School of Allied Health Sciences, School of Dentistry, or School of Nursing undergraduate degree programs (either A.S. or B.S.). Available to seniors anticipating graduation the following May or students entering these programs in the fall, who are single custodial parents, eligible for financial aid (FAFSA application required), and are U.S. citizens or permanent residents, and who are Indiana residents. Deadline May 15.

Carnegie Fellowships \$15,000—Six awards made each year to students with bachelor's degrees studying philanthropy, but not in a degree program. Call the Center on Philanthropy at (317) 278-2858.

Friends of Women's Studies Scholarships Amounts vary—For students with a strong interest in women's issues who have completed at least 6 credit hours in the program. Amounts vary from year to year. Contact Women's Studies for more information at (317) 274-7611.

Arminda B. And Jean C. Bepko Scholarship \$500—Students enrolled at IUPUI with a minor in women's studies who have completed their freshman year and have a minimum 2.8 GPA are encouraged to apply. Contact Women's Studies for more information at (317) 274-7611.

Women's Rotary Club of Indianapolis \$1,500—Nontraditional females returning after three years or more, enrolled at IUPUI for the academic year for education and preparation for reentry into the job market, starting a new career; must be 25 or older. Contact Women's Studies for more information at (317) 274-7611.

Helen Mowery Scholarships \$500-\$1,000—This art scholarship is open to currently enrolled students who graduated from Warren or Lawrence Township high schools applying to Herron School of Art. Contact Herron School of Art for more information (317) 920-2416.

Zora Neale Hurston-Mari Evans Scholarships Up to \$2,000—Graduate and undergraduate students. In honor of two leading women, this scholarship was created to encourage the study of subjects that transcend gender, race, age, culture, and economic status (such as creative arts including composing and music performance, liberal arts, or social sciences). Deadline Sept. 15.

IUPUI Undergraduate Research Opportunities Program Amount varies—UROP offers undergraduate research grants and travel funds to encourage and recognize undergraduates who participate in research and other creative projects with faculty in all disciplines, including music and art. Formal research credits may be earned toward graduation. Contact the UROP Program Director, (317) 274-1028 for more information.

Other scholarships are available for continuing students. These are awarded by schools and various programs. Students should check the material and Web sites for their school or program for these scholarships.

Graduate students should contact their department for information about financial support.

One Million Dollars in Scholarships from External Sources

In recent years, IUPUI students (graduates and undergraduates) have brought approximately \$1 million in private sector scholarships and awards with them to help pay for their education. Students can find information on such opportunities from high school guidance offices, from scholarship source books, and from the online scholarship search

databases available for free to the public. These free connections are available from the Scholarship Central Web site. Search services have different information, so students should consult several of them. Many IUPUI students have had luck with the larger search services such as FastWeb and Expan, which have efficient filters in place that eliminate scholarship entries for which students are not eligible. FastWeb even has applications for many of its scholarships available online.

STUDENTS SHOULD NEVER PAY FOR SCHOLARSHIP OR FINANCIAL AID INFORMATION!

This information is available for free from hundreds of sources. Persistence pays off. Persistent students have better chances of getting a scholarship. Many students take themselves out of the running by failing to follow through and apply. Many local scholarship providers in Indianapolis only receive a few applicants for their awards, and that makes the few who apply more competitive.

Placement Testing

All beginning undergraduate students who have not yet successfully completed one college-level English composition course (W131), or whose programs require math are required to take placement tests in reading, writing, and mathematics prior to enrolling for the first semester at IUPUI. Some applicants may be directed by the Office of Admissions to complete placement tests before the office will finalize an admission decision. The placement test results indicate the students' level of preparedness and the proper or recommended course placement in writing and mathematics.

Placement tests (English, reading, mathematics, and foreign language) are administered by the Testing Center from 8 a.m. to 8 p.m., Monday through Friday, and 8 a.m. to 5 p.m. on Saturday. Students are responsible for scheduling the tests by calling the Office of Orientation Services at (317) 274-4240 between 8 a.m. and 5 p.m., Monday through Friday. Ideally, placement tests should be scheduled at least two weeks prior to Orientation and Registration to ensure that the students' placement test results will be available for advising purposes.

The three placement tests take approximately two and a half hours to complete. (For more information on placement testing, see the placement testing brochures issued by the Testing Center.) Placement test results are given to the students at Orientation. If students have not taken the placement tests or their results are not available, they are limited to a restricted list of courses that do not require placement tests. The UC student manual lists those courses.

Students who have successfully completed college-level work in English (with a grade of C or above in W131) and mathematics (a grade of C or above in MATH 111 or equivalent courses) are exempt from taking placement tests. Students may call the Orientation Office at (317) 274-4240 to determine whether they are exempt from any or all of the placement tests. English test scores are good for two

years, and mathematics placement scores are good for one year from the test date.

In addition, there are placement tests for foreign languages (French, Spanish, and German) and chemistry. Students who plan to take these subjects in their first semester should be tested prior to registration. The foreign language placement test, currently given to students who want to continue in a language previously studied, is scheduled through the Office of Orientation Services at (317) 274-4240. The chemistry placement test is scheduled and administered through the Department of Chemistry. Call (317) 274-6872 for more information about the chemistry placement test.

Testing for Students Whose Native Language Is Not English/English as a Second Language (ESL) Placement Testing

All new students—graduate and undergraduate—whose native language is not English are required to take the ESL placement test prior to registration. This test is administered by the English as a Second Language Program. All international students from non-English speaking countries as well as U.S. permanent residents and others referred by the Admissions Office take the ESL test in lieu of the English writing test that native speakers of English are required to take.

Those who need to further develop their English skills will be assigned to appropriate ESL classes. These courses are required and should be completed as soon as possible. This requirement has been established in recognition of the vital importance of language competency to the academic success of students.

The intermediate courses—ENG G009 and G010—and the advanced courses—G011 and G012—focus on fundamental language skills. This sequence is designed to improve reading and grammar skills as well as listening comprehension and speaking proficiency. Credits from these courses do not count toward IUPUI degrees; however, grades awarded will be included in the student's grade point average.

Undergraduate ESL students are also placed in an appropriate ESL section of the IUPUI writing courses, ENG W001 or W131. These courses carry the same credit and the same requirements as the regular Department of English sections. ESL W131 fulfills part of the communication core requirement focusing on writing skills for undergraduate students. The credit from this course counts toward IUPUI undergraduate degrees, providing that students receive a grade of C or better. A few undergraduate programs accept a grade of C-.

Graduate ESL students who need to improve writing skills are placed in G013, which focuses on the special writing demands of graduate-level classes. Those who need to improve listening and speaking skills are placed in G020, which focuses on the verbal and aural skills required in professional settings.

All new international students should contact the Office of International Affairs at (317) 274-7294 to register for the ESL placement test. For more

information about the ESL Program, call (317) 274-2188 or visit the Web site (www.iupui.edu/~esl).

Accommodations for Placement Testing

Students who because of disabilities need special equipment, extended time, or tests taken in separate rooms—whether for placement testing, orientation, or for actual classes—must contact Adaptive Educational Services (AES) before or at the same time they schedule placement tests. Since registering with AES and providing them with documentation takes time, as does the arrangement of services, students must contact AES [(317) 274-3241] or go to Cavanaugh Hall, CA 001E, as soon as possible before classes start.

Cost for Placement Testing and External Tests

The IUPUI Testing Center administers tests and psychometric instruments for counseling and student development. The IUPUI placement tests (English, reading, and mathematics) are free. However, students who change their placement test reservations less than 24 hours in advance or who fail to attend their scheduled test dates will be assessed \$5 for each rescheduling. The foreign language placement test costs \$12.00.

In addition to the tests mentioned above, the Testing Center administers the (institutional) SAT, ACT, CLEP, DANTES, MAT, LSAT, PRAXIS, interest inventories (e.g., Strong Interest Inventory, Myers-Briggs Type Indicator), learning style indicators (e.g., Merkle Style Preference Indicator), and diagnostic academic skills tests. For more information on external tests (including examination fees), contact: Testing Center, Union Building, Suite G003, 620 Union Drive, Indianapolis, IN 46202-5168; (317) 274-2620; Web site: assessment.iupui.edu/testing.

Orientation—New Student Connections

University College, in conjunction with all the undergraduate schools, requires all new students to attend an orientation, advising, and registration program called Connections. During Connections, students receive an overview of campus resources, review their placement score results, receive information about the school/program in which they are interested, receive survival hints for the first six weeks, and meet with an advisor. Usually, students register immediately following their advising session, provided that their placement scores are available.

E-mail accounts are set up during orientation sessions. Students can also go to computer centers and obtain e-mail accounts online.

In addition to tuition, students pay a new student enrollment fee. All orientation sessions—offered days, evenings, or Saturdays—require a reservation. Especially since some sessions are restricted to students interested in a particular school or program, students should contact (317) 274-4240 to make a reservation prior to orientation.

Advising

New and transfer students receive their initial academic advising during orientation. Other students meet with University College advisors, who help them

chart their first few semesters and prepare them to transfer to their degree-granting schools. The advisors for students with dual admission will probably be advisors or faculty from their intended schools or programs.

Once students transfer to degree-granting schools, they should meet with their school's advisors to chart the completion of required courses, to discuss post-graduation careers or further educational options, or to get help with academic difficulties. Students may be assigned an advisor, but if not, they should ask for one.

Preparing for Advising Sessions

Although advisors are here to help, students are ultimately responsible for their own success. They need to prepare themselves by learning what is required to earn their degrees and to use the tools provided by University College and the campus that aid students in making wise choices in the types and numbers of classes to take.

Elements of an Undergraduate Degree

Basic to planning a college education, rather than just semester-by-semester picking of classes, is an understanding of what components make up a college degree. Most four-year college degrees are made up of about 40 courses. These courses generally are 3 credit hour courses, though some are 1, 2, 4, 5, and even 6 credit hour courses. Each hour of credit generally means 15 hours in class (i.e., one hour per week), though in some programs, especially in the sciences, there are additional credit hours for laboratory or recitation work.

Courses fall into three categories: general-education requirements, major or concentration requirements, and electives. The exact courses that may be used in each of these areas vary according to the program of study.

First-year students generally begin with a learning community, general-education courses, and introductory courses in their majors. Courses required for college degrees are often sequential, that is they build on the content, concepts, and skills learned in lower-level courses. As a result, most schools number their courses 100, 200, 300, and 400 to indicate the order in which students should take the courses. First-year students should generally take courses in which the first number in the course number is either a 0 or 1; occasionally, first-year students might take a 200-level course.

Some courses require students to take prerequisites or lower-level courses before enrolling in the higher-level courses. Prerequisites are listed in the course descriptions in this bulletin. General-education requirements and the specific major requirements are listed in school sections of this bulletin. University College advisors also have checklists of requirements for the different degree programs. Electives, generally five to ten courses depending on a student's program, are usually taken during junior or senior year.

Scheduling Tools and Information

A significant tool in advising is IUCARE/Student Advising System available within Insite via the IUPUI Web site. This online system was designed to help

students and their advisors review degree requirements and student progress towards any intended IUPUI degree or a degree at any IU campus. The online system is not intended to replace regular meetings with an academic advisor. Students, however, may wish to review and print an "audit" in preparation for an advising session. The IUCARE system allows students to investigate what would happen if they changed majors or schools. This student advising system provides students with online access to transcripts and degree requirements (IUCARE), and various special purpose Web sites. For information on IUCARE, visit the Web site (registrar.iupui.edu/iucare.html).

Students planning their schedules should also consult the degree requirements in this bulletin or the appropriate checklists provided by University College advisors. The *Schedule of Classes* is published every March for summer and fall classes and in October for spring classes. It is mailed to all currently enrolled students. An earlier online version of the bulletin is available on February 1 for summer and fall classes and late September for spring classes at insite.indiana.edu. Potential students may request a copy of the schedule by calling the Enrollment Center or visiting any Indianapolis area public library.

Developmental or Refresher Course Work

If placement test results indicate that a student needs more work or a refresher in reading, writing, or mathematics, the student will be required to take these classes first. The basic skills of reading, writing, and calculating are building blocks to most other college classes. Advisors will assist students in selecting a balanced schedule with refresher courses as well as regular college classes when appropriate. In general, students will not be certified to move into their schools until they have successfully addressed any skill deficiencies they may have.

First-Year Seminars or Learning Communities

National studies have shown that successful first-year students need five elements: an introduction to campus resources and support services, the creation of a support network (which is especially important on a commuter campus), on-going personal interaction with faculty and staff, the development of skills and habits basic to academic achievement, and a realization of the high expectation that the campus has for each of its learners. IUPUI has developed learning communities which include First-Year Success courses, dedicated to achieving the objectives spelled out above. Often these First-Year Success Seminars are linked with another course so that the students in the seminar can work together across classes to learn the material and otherwise support one another. The team approach in these seminars of faculty members, librarians, advisors, and student mentors provide students with in-depth knowledge and contacts for key elements of the campus. Some students such as the honors students take special First-Year Seminars and may be required to take more than one semester of these courses.

General-Education Requirements/Introduction to Majors

Beginning students will also be advised to start on the general-education requirements for the program(s) in which they are interested. These classes may include communication skills, science, social and behavioral sciences, arts, and humanities, depending on the school or program. Either in the first or second semester, especially if students are attending full time, they will be encouraged to enroll in the introductory course in their major or program. These are usually 100-level courses.

Undecided and Exploratory Options

Many students come to IUPUI uncertain of what they want to study, in part because they do not know all their options, and because they are unsure of their own strengths. They want to remain undecided until they explore all their options and feel more certain about their direction. "Undecided" and "exploratory" students receive special counseling to allow them to explore possible programs of study. Taking introductory courses in different fields often helps students make up their minds or determine their aptitude or interest. The advisors may urge students to go to the Career Center to investigate career options or take tests that will reflect the students' areas of interest. There also are a number of courses specifically focused on helping students make career choices. This is a healthy process. Exploring possible options early in a college career is common and far better than changing direction in the junior or senior year.

The Merkle Style Preference Inventory Test, which helps students identify areas of interest, may be taken at any computer lab. For interpretation of the results and how the results might influence a career choice, contact University College.

Registration

Registration for first-time students takes place in conjunction with orientation. In subsequent semesters, students have the option of registering by touchtone phone or by computer. Information about registration is available in the *Schedule of Classes*, online, and in the Office of the Registrar. Information on distance education, Weekend College, and off-campus classes is also available on the CLN Web site and in *Give Yourself Credit*.

Schedules of classes and other university communications are mailed to all current students at their current addresses. For these and many other reasons, it is vital that students keep both current and permanent addresses and phone numbers up to date with the university. In some cases, current and permanent addresses are identical, though some use their parents' address as their permanent address especially if they are living in student housing. Students can change their addresses online through insite.indiana.edu. Addresses may also be changed by completing an address change form, available in the Office of the Registrar or at the Web site registrar.iupui.edu.

All students are issued university e-mail addresses. Should students choose to use a different e-mail provider, they should forward their university e-mail to their preferred service provider in order to be sure

to receive important university announcements. Information on forwarding university e-mail is available online at kb.iupui.edu.

Waitlisting

Occasionally, students will be turned away from a class section because it is filled to capacity. Seats may open up, however, if registered students drop the class during the registration period. Through an automated waitlisting system, the first person to make a waitlist request for a class is placed at the top of the waiting list. When a seat opens up, that person is registered automatically for the course. For more information, check the *Schedule of Classes* or visit the Web site registrar.iupui.edu.

Enrollment Authorizations and the Checklist

School authorization does not guarantee enrollment in a class; it only authorizes that the student is eligible for enrollment. Schools may restrict enrollment, so students should review the course description in this bulletin or the *Schedule of Classes* to see if they fit the requirements. For instance, some courses such as upper-division courses in business or courses in allied health are open only to students officially enrolled in those schools. Other courses may be restricted to students with sophomore, junior, senior, or graduate student status. Otherwise ineligible students who believe their personal preparation overrides the restrictions may seek the instructor's permission to enter the class.

When students are checklisted, they cannot register for courses because they have failed to meet some requirement of the university or school and cannot proceed until the problem is resolved. Problems that result in a student being checklisted are a grade point average below the required level or failure to pay tuition or other fees. Students with unpaid library fines or outstanding parking tickets may be placed on the checklist. Students can review their status on Insite, and if they find they are checklisted, they should contact the office(s) listed to resolve the problem. For more information about the checklist procedure, students may contact the department or school involved or the Office of the Registrar.

Schedule Adjustments (Dropping and Adding Classes)

To drop a course and make a successful transition into another class, students are encouraged to drop and add before classes begin or no later than the first week of classes. During summer school, students should drop and add during the first two days of classes. Students are allowed to drop classes, subject to the approval of their academic advisor and school restrictions, through most of the semester. Specific deadlines and procedures appear in the *Schedule of Classes* or on the Web at registrar.iupui.edu. Students wishing to add a course should do so as close to the start of the semester as possible, as instructors may refuse students admission into classes if they believe that students have already missed too much work in the new class.

During the first four weeks of regular semesters, partial refunds are given for dropped courses. Initially, students may drop classes with no signatures; then they need their advisors' and later

their instructors' signatures. To drop a class in the final part of the semester, students who have a serious and documented reason, such as a serious medical problem, need all of the previous signatures plus the dean's signature. Instructors have the authority to assign the grade of F if a student's work has been unsatisfactory even if permission to withdraw has been obtained.

Students who choose to withdraw must officially drop classes. Failing to attend class does not mean a student has dropped a class but rather will result in an F in the course. Failing to pay for the course once registered, having received a deferment of payment, will result in both an F and a bill for the course. For more information on dropping and adding classes, students should see a later section in this bulletin, "Academic Policies and Procedures," the *Schedule of Classes*, or the Web site registrar.iupui.edu.

Nontraditional Scheduling Options

IUPUI offers numerous educational options outside the traditional classroom. These Distance Learning Delivery Systems are found at convenient locations, at times stretching over seven days and nights, and, in addition to regular course formats, are offered online, by TV, and through the U.S. mail. For more information on course and credit program options, see the *Schedule of Classes*, *Give Yourself Credit*, or the IUPUI Community Learning Network at the Web site www.cln.iupui.edu.

See also information about CUE, a consortium of Indianapolis colleges and universities that augments IUPUI's traditional on-campus courses. Students in some programs may be registered on more than one campus simultaneously. Check with either the school involved or the Office of the Registrar.

Distance Learning IUPUI's Community Learning Network (CLN) offers classes off campus year-round and on the weekends. Through television, CLN connects college-bound learners in metropolitan Indianapolis and central Indiana with the academic and technical resources at IUPUI. Lectures are delivered over public television, WFYI TV Channel 20, Time Warner Channel 19, Comcast Cablevision Channel 39, or by videotapes purchased from the IUPUI Bookstore. Syllabi are offered online. Students interact with peers and faculty through computers, fax, telephone conferencing, and voice messaging systems. Students may complete all requirements for the School of Liberal Arts Associate of Arts and the School of General Studies Associate of General Studies degrees through CLN. Each semester, new courses are offered over the Internet. Visit www.cln.iupui.edu for more information.

Internet and Online Courses Increasingly, Internet programs are part of the way IUPUI offers classes. Internet programs use e-mail, the World Wide Web, computer conferencing, and other Internet-based applications. Students often can complete program requirements without going to a learning center. Currently, course descriptions are online, and over 600 courses have their syllabi and, in some cases, all class materials online via Oncourse.

Off-Campus Sites Starting in 1979, the nation's first major off-campus Learn and Shop College Credit

Program offered classes in the training rooms of major department stores in three suburban Indianapolis shopping centers and in area high schools. The university now teaches at two permanent sites at Glendale Mall and the Carmel Community Life and Learning Center. Students may satisfy the requirements for the School of Liberal Arts Associate of Arts degree and the School of General Studies Associate of General Studies by taking courses exclusively in off-campus locations. The Weekend College Office is located in the Enrollment Center, open Saturdays and Sundays during the Fall and Spring semesters.

Correspondence Courses IU's Independent Study Program offers numerous credit courses through home study. Instructors and students communicate in writing, by phone, or by e-mail. Students start these courses any time and complete them at their own pace. This is especially valuable to adult learners or people with swing shift jobs for whom regular classes are virtually impossible to attend. These courses, however, do not count towards a full- or part-time load for the purpose of financial aid. Students need to check with their academic units to determine which, if any, correspondence courses can be used to meet requirements for their degree programs. The Independent Study Program booklet is available in most school offices and by calling 1-800-334-1011. For additional information, see Independent Study Program in the School of Continuing Studies section of this bulletin or the Web site scs.indiana.edu.

Indiana College Network (ICN) This system delivers classes from seven Indiana universities and several independent colleges over satellite, intercampus television networks, the Internet, CD-ROM, or through correspondence. The ICN evolved from the earlier Indiana Higher Education Telecommunication System (IHETS), which delivered programs by satellite to 300 receiving sites. For information, visit www.icn.org.

Western Governors University Through a collaborative effort among the governors of ten western states, a competency-based virtual university was established in 1998. Dozens of universities and corporate partners originate and deliver courses, degrees, and programs. Courses are offered by paper and pencil correspondence, by videotape, satellite TV, or the Internet. Students may enroll in courses online through WGU at various learning centers on campus and throughout Indiana. For more information, visit the Web site (www.wgu.edu).

Fees

IUPUI tuition is set annually by the Trustees of Indiana University. Current fees appear in the *Schedule of Classes*, and the rules that determine whether students are residents or nonresidents for fee purposes appear at the end of this bulletin. Undergraduate programs and most graduate/professional programs charge by the credit hour, while the Schools of Medicine and Dentistry charge a yearly flat fee.

In addition to tuition, there are some special course fees for equipment or supplies; all undergraduates are assessed technology, athletics, and student activities fees. New students are charged for

orientation. The one-semester parking fee is optional, and books and supplies are additional. Various payment options are described in the *Schedule of Classes* and in materials distributed with bills. See bursar.iupui.edu for more information, including current fees.

Students whose financial aid or loans have not yet arrived may qualify for automatic aid deferments through the Financial Aid Office. Students should find out from Financial Aid whether they have received deferments since such deferments cover fees, partially or totally. This means students are actually enrolled and must attend classes or officially withdraw. If they withdraw, their bills will be adjusted accordingly. It is, therefore, critical that students check with the Financial Aid Office or monitor their accounts via Insite (insite.indiana.edu) to determine whether they received deferments.

University College: Gateway to IUPUI in the First Semester

When undergraduates enroll at IUPUI, they enter the University College, a student-centered community focused on helping undergraduate students adjust to college life and achieve their goals. The UC is a team committed to addressing student concerns. Its faculty members are IUPUI's academic leaders, its advisors are professionals who assist students in developing a plan of study based on student abilities and desires, and its student mentors are peers who help students understand how to study effectively and efficiently.

Partnership for Academic Excellence

All University College students sign the Partnership for Academic Excellence to ensure that students understand and commit to those elements that the staff and faculty of IUPUI and universities around the country see as vital to success. The faculty, advisors, and staff of University College identify the services and other forms of assistance that IUPUI provides to help students.

The Partnership for Academic Excellence stresses the importance of always attending class, completing assignments on time, giving adequate time to out-of-class learning experiences, including reading, review time, and researching and rewriting written assignments. In addition, students are urged to maintain contact with their University College advisor and other staff on a regular basis to review, discuss, modify, and plan their academic program, and to work to achieve at least a grade of C (2.00 GPA) in all courses. The full text of this agreement is in the University College section of this bulletin.

Time on Task (Absence Policies)

Regardless of whether an explicit absence policy appears on the syllabus, students are expected to attend all classes and are responsible for completing all course work required. Unless the instructor has a different procedure for absences, when students are unable to attend class, they should contact the instructor prior to or immediately following the absence. Students should identify someone in class

who is willing to share notes or discuss what was missed. Some instructors may provide videotapes of missed classes, but it is not the instructor's job to repeat a class for a student who is unable to attend class. Exams or other work missed during absences can only be made up with the approval of the instructor. Instructors may choose to count a student absent who comes late or leaves early. As always, discontinuing class attendance without officially dropping the class will result in the student receiving a grade of F.

The Early Warning System

National research shows how important it is for students to get early feedback on their work. IUPUI faculty, therefore, send informal assessments to students' advisors through the Early Warning System. Advisors then contact the students who are having trouble and encourage them to rethink their study habits and seek academic assistance.

The Learning Center/Academic Assistance

The Learning Center, devoted to students helping students, includes the Resource Center and the Student Mentoring Program. It is on the second floor of the University College (UC), which is located in the old library building.

Supplemental Instruction Program

The Supplemental Instruction Program provides a collaborative environment, one that builds community and strengthens academic skills. Mentors—students who have successfully completed a course and are now helping others—work with groups free of charge to improve students' understanding of difficult material in courses such as psychology, math, economics, chemistry, and biology. In addition, mentors share study skills and test-taking techniques. For more information, contact the Learning Center at (317) 274-4818.

Tutoring

The Department of Mathematical Sciences and the University Writing Center provide students with free, one-on-one tutoring. Math tutoring is available for MATH 163, 164, 221, and 222 through the Math department. Other departments will help students identify tutors who charge for their services. The Resource Center can provide additional information on the availability of tutors.

Resource Center

The Resource Center is a student-staffed referral service where IUPUI students can find tutors and campus resource information for courses not covered by the Student Mentor Program. Help is also available with studying and time management, techniques for taking exams, and information about the Supplemental Instruction Program.

The Ideals Underlying an IUPUI Undergraduate Education

Principles of Undergraduate Learning

The Principles of Undergraduate Learning are the essential ingredients of the undergraduate educational experience at Indiana University–Purdue University Indianapolis. These principles form a conceptual framework for all students' general education but necessarily permeate the curriculum in the major field of study as well. Other specific expectations for IUPUI's graduates are determined by the faculty in a student's major field of study. Together, these expectations speak to what graduates of IUPUI will know and what they will be able to do upon completion of their degree.

Core Communication and Quantitative Skills

[Definition:] The ability of students to write, read, speak and listen, perform quantitative analysis, and use information resources and technology—the foundation skills necessary for all IUPUI students to succeed.

[Outcomes:] This set of skills is demonstrated, respectively, by the ability to: (a) express ideas and facts to others effectively in a variety of written formats, (b) comprehend, interpret, and analyze texts, (c) communicate orally in one-on-one and group settings, (d) solve problems that are quantitative in nature, and (e) to make efficient use of information resources and technology for personal and professional needs.

Critical Thinking

[Definition:] The ability of students to analyze carefully and logically information and ideas from multiple perspectives.

[Outcomes:] This skill is demonstrated by the ability of students to (a) analyze complex issues and make informed decisions, (b) synthesize information in order to arrive at reasoned conclusions, (c) evaluate the logic, validity, and relevance of data, (d) solve challenging problems, and (e) use knowledge and understanding to generate and explore new questions.

Integration and Application of Knowledge

[Definition:] The ability of students to use information and concepts from studies in multiple disciplines in their intellectual, professional, and community lives.

[Outcomes:] This skill is demonstrated by the ability of students to apply knowledge to: (a) enhance their personal lives, (b) meet professional standards and competencies, and (c) further the goals of society.

Intellectual Depth, Breadth, and Adaptiveness

[Definition:] The ability of students to examine and organize disciplinary ways of knowing and to apply them to specific issues and problems.

[Outcomes:] (a) Intellectual depth describes the demonstration of substantial knowledge and understanding of at least one field of study, (b) intellectual breadth is demonstrated by the ability to compare and contrast approaches to knowledge in different disciplines, and (c) adaptiveness is demonstrated by the ability to modify one's approach to an issue or problem based on the contexts and requirements of particular situations.

Understanding Society and Culture

[Definition:] The ability of students to recognize their own cultural traditions and to understand and appreciate the diversity of the human experience, both within the United States and internationally.

[Outcomes:] This skill is demonstrated by the ability to: (a) compare and contrast the range of diversity and universality in human history, societies, and ways of life, (b) analyze and understand the interconnectedness of global and local concerns, and (c) operate with civility in a complex social world.

Values and Ethics

[Definition:] The ability of students to make judgments with respect to individual conduct, citizenship, and aesthetics.

[Outcomes:] A sense of values and ethics is demonstrated by the ability of students to: (a) make informed and principled choices regarding conflicting situations in their personal and public lives and to foresee the consequences of these choices, and (b) recognize the importance of aesthetics in their personal lives and in society.

Active Learning: Research and Apprenticeships

IUPUI, like older universities, is a repository for theoretical or pure knowledge, a focal point for its transmission, a place for generating and critiquing new knowledge. And IUPUI, like other new urban universities, simultaneously has a special interest in applied knowledge because of its intimate ties with its community. This interest in applied knowledge is strengthened at IUPUI by the presence of its numerous and outstanding professional schools as well as the land grant tradition stemming from IUPUI's Purdue schools. Land grant universities were created to assist the citizens of the state with their day-to-day problems. IUPUI has already achieved a strong record in generating new theoretical knowledge and an equally impressive record in addressing issues of an applied nature; that is, taking knowledge from the classroom, the library, and the laboratory into the world of business, into health facilities, into governmental offices and neighborhoods, to the zoo, and to K through 12 schools.

At IUPUI, these dual missions touch the lives of all undergraduate students. In a sense, IUPUI is reversing a pattern in higher education. In the nineteenth century, when universities moved from primarily transmitting knowledge to actively pursuing and creating knowledge, undergraduates regularly worked alongside faculty. However, with the development of graduate and professional programs and the explosion of knowledge, undergraduates increasingly were excluded from the front lines of

research to more restricted roles as receivers of existing knowledge.

IUPUI, for most of its history, has reversed this pattern by re-involving undergraduates in research and first-hand experiential learning. Perhaps this happened because of the large number of adult undergraduate students with professional-level skills, if not degrees, that were so much a part of the early IU and PU extension centers that formed the heart of IUPUI's undergraduate programs. Perhaps it was because the professional schools retained their concepts of apprenticeships, although they rarely use that term. Regardless of the origins of the concept, however, IUPUI believes that undergraduates should participate in research and apply classroom knowledge in the real world as a test of its validity.

Most undergraduate programs include research or internship/co-op/practicum components or both. Also, the campus has for over 15 years funded opportunities for research work, which is open to all undergraduates and described elsewhere in this bulletin.

Linkages

Research shows that students who are involved in and informed about their college tend to be more successful in greater numbers than students who don't develop ties to the larger community. Orientation is the first way that IUPUI shows students how their academic and private lives link with their lives as campus citizens. Orientation describes the numerous clubs and student service organizations in place to help students and explains the business of IUPUI, which is to teach, research, and serve. The discussions begun in orientation are taken up in the first-year seminars. These credit classes for beginning students, also referred to as learning communities, are small classes with a team of facilitators including a full-time faculty member, an advisor, a librarian, and a student mentor. A major focus of these courses is to link students to the campus in a variety of ways.

At IUPUI, students encounter the pervasive theme of service to society. This emphasis in part reflects the presence of the Center on Philanthropy, which includes a world-renowned fund-raising school that trains nonprofit organizations. The center's presence has focused the campus on service and led to the development of undergraduate and graduate courses on numerous aspects of philanthropy. Service learning components are part of a wide array of classes (See "Service Learning" elsewhere in this bulletin), and the campus conducts a strong annual United Way campaign, a Day of Caring that involves volunteer work by students, faculty, and staff, as well as growing volunteer efforts by student groups on the graduate and undergraduate levels. Such efforts include projects such as tutoring elementary school children, blood drives, gathering supplies for the victims of earthquakes, clean-up projects, and staffing clinics.

Civility

Chancellor Gerald Bepko best defined "civility" when he stated in a letter to the campus the following message:

"We often speak of IUPUI as being a family. Like members of a family, we have dedicated ourselves to creating an environment where individuals can succeed because each person is important. When any one of our members is prevented from doing her or his best, the entire community is diminished. We are also an institution of higher learning. Our institutional ethic compels us to foster the best possible environment for doing our work as educators, learners, and supporters of the educational process. Periodically, we must reaffirm these fundamental ethics and values that form the framework of our university family.

"Among those values is fostering a climate of civility and mutual respect regardless of race, gender, age, or status in this institution. IUPUI has achieved much of its promise as an urban university because we work together towards common ends. Because the university is so complex and diverse, however, we will not always agree with one another. When we disagree it must be done with civility. We encourage everyone to speak and act judiciously and with respect for one another.

"Also among our values is academic freedom and an open exchange of ideas and opinions. However, when there are messages displayed that promote divisiveness in our academic community, we have an obligation to condemn those messages as being antithetical to our university's ideals and sense of shared responsibility for each other's welfare. If we are to be true to our commitment to diversity and be welcoming to all, everyone must do his or her part. We know the terrible legacy of unopposed statements; they become insidiously acceptable and poison the climate of trust and respect we strive to maintain. When apathy leads us to permit discrimination or harassment because we ourselves are not objects of such behavior, we have failed our community.

"No set of rules or policies can wholly govern human conduct. Civility is a fragile construct that each of us must cherish and preserve. We do have policies designed to eliminate discrimination and to prevent harassment. Our Office of Affirmative Action enforces these policies and assists in educating the campus community about acceptable and unacceptable behaviors."

The Code of Student Rights, Responsibilities, and Conduct also addresses the issues of civility and other conduct appropriate to being part of a university community.

Certification from University College to Degree-Granting Schools

Selecting a Major

Students who meet the regular admission criteria for IUPUI, who meet additional school admission criteria, and who indicate the major/program that they wish to study when they apply, may move into their schools after the first six weeks of the first semester. This dual admission is offered on the conditions that (1) students are not required to take

refresher courses following their placement tests; (2) they are enrolled in a first-year seminar; (3) they have attended orientation and have been advised; and (4) their midterm performance is satisfactory.

Other students will move to their schools during their first 56 credit hours of study, during which time students should be completing general-education requirements and other courses necessary for admission into their chosen school or program. Since these courses vary widely from one program to the next, students should refer to the University College checklists and this bulletin to ensure that courses count towards their degree.

Additional Options Available

Double Majors

While most students complete only one major within their program of study, some schools permit students to complete two majors within a school. To do so, the student must complete the requirements for each of the two majors as well as all other school requirements for a degree. Students seeking a double major must consult advisors from each of the departments in which they propose to study. Usually, the student must receive the approval of the school advisor or school dean of students to do so.

Dual Degrees

While most students work on a single degree at a time, a student may work on what is essentially two degrees in two different schools at IUPUI simultaneously (e.g., B.A. from Indiana University in English and a B.S. in Psychology from Purdue University). Such dual degrees can be obtained by completing all requirements in the two schools for the two different degrees. Some, but not all the same, courses can be used to satisfy requirements in both schools. Working on dual degrees must be approved by the appropriate deans and advisors in both schools.

Minors

Students in many schools may take one or more minors along with their majors. Minors will not appear on the student's transcript until graduation. Students majoring in one school often can elect to complete minors in other schools.

Minors are structured programs generally of 15 to 18 credit hours, though they may require more. They are of three types: (1) departmental or single-discipline minors, (2) interdisciplinary or cross-discipline minors, and (3) thematic minors.

In most schools, only courses in which students receive at least a C (2.0) can be applied to the minor. Listings of minors available and the specific requirements for minors are described in each school's bulletin section.

Certificates

Certificate programs resemble minors but generally require more credit hours. Some certificate programs are stand-alone programs, which means that a student does not have to be working towards a two- or four-year degree to complete a certificate program. In most schools, only courses in which students receive at least a C (2.0) can be applied to the certificate program, while in some schools

students may be permitted to average all grades required in the certificate program. Specific requirements and grade policies can be found in the section for the school offering the certificate.

Second Undergraduate Degrees

Normally, holders of bachelor's degrees seeking further education are encouraged to enter graduate programs; in certain cases, however, students may prefer to work toward a second bachelor's degree. IUPUI strongly recommends that students discuss current requirements with an advisor prior to starting work on a second undergraduate degree. If admitted by a school to candidacy for a second degree, students may count credits earned in their first bachelor's degree. However, they must meet the school's requirements, including residence requirements, distribution course work, work in the major, and other requirements not fulfilled by earlier work. Some schools may specify the number of credit hours that must be taken above and beyond the credit hours from the first degree.

Changing Units

University College's goal is to launch students on a successful college career. Once the transition from high school to college, or from workplace to college has occurred, University College focuses on moving students into their degree-granting programs and schools. The faculty require that, at minimum, students must successfully complete a learning community course, be enrolled in or eligible to enroll in W131, be enrolled in or be eligible to enroll in MATH 111, complete the reading requirements, attain a minimum GPA of 2.0, and complete 11 credit hours (12 credit hours at Columbus) in order to certify to a degree-granting school. Many schools have more requirements. Refresher courses will not count toward students' degrees but will count toward the students' standing as full- or part-time degree-seeking students for financial aid and insurance purposes.

Students on probation must fulfill their contractual agreements and achieve a minimum cumulative GPA of 2.0 to be removed from probationary status. When students meet their school's requirements, they are eligible for certification to those schools. Otherwise, students remain in University College until they (1) meet the conditions for admission into their desired school; (2) change career objectives and find another school at IUPUI willing to accept them; or (3) earn too many credit hours to remain in University College. (See the section below entitled "The 56 Credit Hour Rule.")

Admission into Degree-Granting Programs from University College

Some schools accept all students with a minimum GPA of 2.0 or other specified GPA. In such schools, students can change schools or programs using an Office of the Registrar IUPUI School Record Change Form. To be sure that they are eligible to transfer, students should consult the school recorder.

Other schools require both a set GPA and the completion of a set of specific courses with a specific GPA. In such schools, it is more difficult to determine a student's eligibility. Such schools often have a formal application.

Admission into Capped (Limited Enrollment) Programs

Admission to IUPUI schools is often competitive. Schools may limit their applicant pool to students with a specified minimum GPA, and if selected for application, students may be asked to take part in an interview as part of the admission process. It is important for students to fully understand the entrance requirements of the school or program in which they hope to enroll. Students who are not accepted after one or two tries should work with an advisor to select an alternate program of study.

The 56 Credit Hour Rule

IUPUI encourages students to explore a variety of majors, but after accumulating about 26 credit hours, students should select a degree program. In order to remain in the university after accumulating 56 credit hours, undecided students must be accepted into their degree program or apply to the General Studies degree program. Transfer students with more than 56 transfer credit hours may remain in University College one semester before they must be accepted into their degree program. If, at the end of that semester, they still have deficiencies or unmet prerequisites, these transfer students may petition for additional time in University College.

Procedures for Changing Schools/Programs at IUPUI

To transfer from one IUPUI school to another, students should contact the recorder of the school to which they wish to transfer to find out if they have met the necessary requirements. University College students should contact the UC recorder. Acceptance by the new school requires the approval of the appropriate school dean.

Students may also wish to change majors within a school, say changing from criminal justice to urban affairs in the School of Public and Environmental Affairs (SPEA) or from chemistry to biology in the School of Science. Again, students should contact their school's recorder to determine their eligibility and consider the consequences of such a change.

A Temporary Change of Campus

If IUPUI students want to enroll at another Indiana University campus on a temporary or permanent basis, they should contact the Office of Admissions at the appropriate campus. More information on transferring to another Indiana University campus may be found on the Web at enroll.iupui.edu. Likewise, to enroll at another Purdue University campus, students should contact the Office of Admissions at the appropriate Purdue campus.

STUDENTS CONSIDERING PERMANENT TRANSFERS SHOULD REMEMBER THAT DEGREE REQUIREMENTS VARY ON DIFFERENT CAMPUSES, WHETHER AT IU OR PURDUE. TRANSFERRING MAY REQUIRE A YEAR OR MORE OF ADDITIONAL FULL-TIME STUDY, ESPECIALLY IF THE TRANSFER IS MADE IN THE JUNIOR OR SENIOR YEAR.

Student Responsibilities

The faculty and Trustees of Indiana (and Purdue) University vote to confer the degree on students at the end of their course of study, and if requirements are not met, they may withhold the degree. Students are

responsible for understanding all requirements and completing them by the time they graduate. Advisors, directors, deans, and faculty gladly help students understand school requirements; however, each student is responsible for fulfilling the requirements. Students may refer to this bulletin, Insite (insite.indiana.edu), and school advisors and recorders to find out about their personal progress toward a degree.

Similarly, students are responsible for informing IUPUI of any changes in their name, address, phone number, and other relevant data. Students may use Insite (insite.indiana.edu) to change information online, or provide it directly to the Office of the Registrar. Likewise, students are responsible for securing the necessary form and signatures to drop classes and for turning the forms in on time. Failure to properly drop a course could result in an F in that course. Similarly, all registration or add procedures must be followed or students risk not receiving credit for a course that was improperly added.

Students should also be familiar with the rules of appropriate academic behavior which are based on three major premises: (1) The free exchange of ideas is critical to university life, and therefore civility within the academic community must be ensured; (2) ideas are as much property as are houses, cars, CDs, and wallets, and therefore, another person's ideas cannot be used without permission and acknowledgment of the idea's true owner; and finally, (3) knowledge and wisdom are truly the result of contributions of individuals and societies past and present from around the world, and therefore, diversity is seen as a desired, even crucial, component of any intellectual community. These concepts lead to rules and regulations that are found in the *Code of Student Rights, Responsibilities, and Conduct*. A brief summary of some key elements of the Code appear in a later section of this bulletin. Students are expected to be familiar with the basics of the Code.

Graduation Requirements

Applying for Graduation

Candidates for graduation initiate the certification process by filing an Intent to Graduate form with the recorder of their school at least one year prior to their expected graduation date. Purdue degree candidates must register for CAND 991 as noted in the *Schedule of Classes*. Details concerning the application deadlines of specific schools and any additional requirements related to graduation are available from the recorder or the school sections of this bulletin.

Completion of Degree Requirements

When students contact the recorder about graduation, they should double-check that they in fact will have completed graduation requirements. The IUCARE/Student Advising System shows what courses students still need to take and whether all transfer work has been entered. Some schools do audits either when students file for graduation or at the

beginning of their senior year. Students should go over audits with their advisors to make sure they are accurate, and if they should contact the school recorder with questions. Common mistakes that result in students' failure to graduate are unacceptable grades and not registering for necessary courses, dropping them during the last semester, or otherwise failing to complete required courses. Students may graduate with incompletes on their record, provided they are not for required courses. Residency requirements also affect graduation eligibility. For more information visit registrar.iupui.edu/iucare.html.

Required Grade Point Average

In addition to completing all the required course work, students must have a specific overall grade point average and a specific GPA in their major to graduate. Most schools also require grades of C or better in major courses. Students should familiarize themselves with the policies of their program.

Academic Policies and Procedures

Grading System

A+ Through F

Faculty have the responsibility for evaluating a student's performance and assigning a grade for the course. They select grades from the list below and have the discretion of using plus and minus grades. The registrar will use the following numerical equivalencies in computing a grade point average (GPA):

Grade	Points
A+ =	4.0 Highest Passing Grade
A =	4.0
A- =	3.7
B+ =	3.3
B =	3.0
B- =	2.7
C+ =	2.3
C =	2.0
C- =	1.7
D+ =	1.3
D =	1.0
D- =	0.7 Lowest Passing Grade
F =	0.0 Failing Grade
P =	Pass
S =	Satisfactory
I =	Incomplete
R =	Deferred Grade
NC =	Course taken as Audit (No Credit)
NR =	Grade not yet received in Office of Registrar
NY =	Special program enrollment for which credit earned will be recorded when completed. Typically used for Study Abroad
W =	Withdrew after the first week of classes. Grade will appear on transcript
WX =	Withdrew through the first week of class. Grade will not appear on transcript.
WZ =	Changed sections of the same course. Grade will not appear on transcript.

Grades of I and IX (Incompletes)

A grade of I (incomplete) may be assigned by an instructor when exceptional circumstances, such as illness, prevent students from finishing all work required in a course. The grade of I will be awarded only if the work is mostly complete, and of passing quality.

The faculty member will set a specific date (up to one year) by which all unfinished work must be completed. Upon submission of the completed work, the faculty member files a Removal of Incomplete form with the Office of the Registrar, and students receive notification by mail of the new grade and the updated cumulative GPA. A grade of I that has not been removed within one calendar year of the time it is recorded will automatically be converted to a grade of F. The student will receive notification of this pending change and should take immediate steps to resolve the Incomplete. In rare cases, the instructor may agree to extend the deadline for resolving the Incomplete beyond the initial one-year period and in turn will submit a grade of IX on the Removal of Incomplete Form.

The faculty member is not required to give the student a year to finish the work. The instructor has the right to set an earlier deadline if deemed appropriate.

If students have to re-take the course in order to remove the Incomplete, they should not re-enroll in the course. Instead, they should make arrangements with the original instructor and any new instructor to sit in on a portion of or the entire course as required by the instructor(s). In all cases, the original instructor is responsible for assigning the final grade. If he or she is unavailable or no longer with the university, the student should consult with the chair of the department in which the course is offered. If after receiving an Incomplete, students wish to withdraw from the course, they must follow the official IUPUI procedures for withdrawal.

Students should understand that sitting in on a course or otherwise making up the Incomplete does not count as part of the full- or part-time course load for financial aid purposes or for loan deferments.

Grades of P/F (Pass/Fail) at the Undergraduate Level

During an undergraduate program, a student in good standing (not on probation) may enroll in up to a maximum of eight elective courses to be taken with a grade of P (pass) or F (fail). Each school's regulations vary on the Pass/Fail option. Most schools restrict students to two Pass/Fail courses during an academic year. In some schools, Pass/Fail courses cannot be used to satisfy general-education requirements or requirements in the major or minor. In rare cases, a student may be able to use the Pass/Fail option for part of the general-education requirement. Other programs may permit some limited use of the Pass/Fail option for departmental electives required for the major. The school recorders can explain the Pass/Fail procedure for each school/program.

Instructors are not involved in the decision to use the Pass/Fail option and are not informed that the student

is taking a course on a Pass/Fail basis. All instructors report the traditional letter grades to the Office of the Registrar where all grades of D– or above will be converted to grades of P.

A grade of P does not affect the grade point average, but a grade of F does. Once a student requests that a course be taken Pass/Fail, the student cannot request that the Pass/Fail option be reversed. A course in which a student earns a P will count towards graduation.

Courses taken on a Pass/Fail basis count toward full- or part-time standing for purposes of financial aid or loan deferments.

The student must turn in the signed Pass/Fail forms to the Office of Registrar by the deadline specified in the *Schedule of Classes*.

Grades of S/F (Satisfactory/Fail)

Certain courses are taught on an S (Satisfactory) or F (Fail) basis. Everyone in the course receives either S or F grades, and individuals do not have the option of receiving A+ through D– grades. Courses graded on an S/F basis usually carry a footnote to that effect in the *Schedule of Classes*.

A grade of S does not affect the GPA; a grade of F does. Most other universities will not accept S grades for credit.

Grades of R (Deferred)

The grade of R (Deferred Grade) will be applied when the student's work only can be evaluated after two or more semesters. The grade of R is appropriate in thesis and research courses in which the student's work is evaluated only when the thesis or research is done. It may also be used at the end of the first of a two-term course or a course that overlaps two terms if the course is approved as a Deferred Grade course.

Grade Appeals

Each degree-granting unit has policies and procedures for handling student appeals regarding academic decisions such as grades. If students believe they were given an incorrect grade, they should contact the instructor first and then the director or chair of the unit offering the course. If that proves unsatisfactory, the student should contact the unit regarding the process for appealing the grade in question. See school sections for additional information or see the registrar's Web site.

Semester and Cumulative Grade Point Average (GPA)

Only courses with grades of A+ through D– and F are used in calculating grade point averages (GPA). P and S grades are passing grades in completed courses, but they are not used in calculation of a GPA.

To calculate a semester GPA, take the value (or quality points) for each grade and multiply it by the number of credits. For example, a 3 credit course with the grade of A equals 12 GPA points. (The grade of A equals 4 quality points multiplied by 3 credit hours.) Add all GPA points together and then divide by the total number of GPA credit hours completed.

Example:

3 credit A	3 credits x 4.0 pts	= 12.0 pts.
3 credit B	3 credits x 2.7 pts.	= 8.1 pts.
2 credit C	2 credits x 2.0 pts.	= 4.0 pts.
2 credit F	2 credits x 0.0 pts.	= 0.0 pts.
2 credit S	not used in calculation	
2 credit I	not used in calculation	
3 credit W	not used in calculation	

10 credits = 24.1 pts.

24.1 points ÷ 10 cr. = 2.41 GPA

The cumulative GPA is calculated by combining the credits for all the semesters taken at IUPUI or an IU campus and dividing that number into the total number of credits earned in courses with grades of A+ through F. Courses taken at other non-IU institutions are not used in calculating the IU GPA.

Credit hours passed is the number of IU course credit hours completed with a passing grade (A+ through D–, S, P) at the level indicated (undergraduate, graduate, or cumulative). Any credit hours earned as a transfer student from outside the IU system are recorded on the transcript as transfer credit hours. IU credit hours passed and transfer credit hours are added together to determine a student's class standing.

In some cases, schools calculate a degree GPA, which may vary slightly from the cumulative GPA as it appears in the summary portion of a student's transcript or IUCARE audit. This is due to differences in program requirements, especially when students are earning Purdue degrees.

The degree GPA for IUPUI students pursuing Purdue degrees offered by the Schools of Engineering and Technology; Science; and the Tourism, Convention, and Event Management programs will be calculated using the Purdue University grading policy. Courses taken at any IU or Purdue campus and included in the student's program of study will be used in calculating the final GPA at the time the degree is awarded.

Class Standing

0-25 credit hours	= Freshman
26-55 credit hours	= Sophomore
56-85 credit hours	= Junior
86 or more credit hours	= Senior

In some schools, a student's class standing is determined by where the student is in his or her program and not by the simple total of all credit hours. This is especially true if the student has changed majors and moved into a program where a significant number of credit hours previously taken will not apply toward the new major.

Semester Credit Hour Load

To be considered a full-time undergraduate student by the university for the fall and spring semesters, a student must register for a minimum of 12 credit hours each semester. In summer sessions, full-time status is considered at least 6 credit hours in each session. These numbers are the university's definition

of full-time status for undergraduates seeking financial aid. Some degree programs require more than 12 credits per semester.

In general, undergraduate students may take no more than 18 credits in the fall or spring semesters and no more than 7 credits in a summer session. Superior students may exceed these limits with written permission from the dean addressed to the Office of the Registrar. Some academic programs require more credits as a matter of course, but schools may further limit the number of credits for students who have performed poorly in past semesters.

Graduate students must take at least 8 credit hours to be full time in the fall and spring semesters, and 4 credit hours during the summer sessions.

Course Loads and Work

The following guidelines may assist a student in determining the appropriate number of credit hours to take in combination with work and other obligations. Financial aid regulations also affect course load.

Hours Employed Per Week	Semester Load	Summer Load	Status
31-40+	6 credits	3 credits	half-time status
21-30	9 credits	4-5 credits	three-quarter status
0-20	12-17 credits	6 credits	full-time status

University College probationary students will be limited to a maximum of 12 credit hours per regular semester and urged not to take more than 3 credit hours per summer session. Other schools limit probationary or re-admitted students until they have established good academic records.

Academic Probation

Students are placed on probation any time their cumulative GPA falls below their school's or program's GPA of good standing. Individual schools and programs vary in their policies. See the sections in individual programs for further information on probation.

Dismissal

Students may be dismissed from their school or program if they fail to meet academic or professional standards. The student will be informed of the dismissal in writing by the school's dean or the dean's campus representative.

Some factors considered when students are dismissed are failure to maintain a minimum GPA of 2.0 (IUPUI's GPA of good standing) or the school's GPA of good standing after being placed on probation, a lack of progress toward the degree requirements in the judgment of the faculty, or a lack of acceptable ethical or professional behavior. Dismissed students are required to sit out for at least one semester following their first dismissal, and at least one full year following their second dismissal in most schools. See individual programs for more information about dismissal and readmission. Individual departments/schools may refuse to readmit students on the basis of their academic records.

Students already enrolled in and even attending classes will be administratively dropped from those

classes and their money returned if they are dismissed.

Readmission

Any student who has been dismissed from an IUPUI school or its equivalent on another IU campus (or Purdue campus for students in the Schools of Science and Engineering and Technology) must petition for readmission. Some schools also require students dismissed from other institutions to petition for admission. Each petition is considered individually, and a decision is made based on the student's academic history and personal circumstances. Students must explain why they were dismissed and how they expect to deal with potential problems. A Petition for Readmission form may be obtained in school offices or the Office of the Registrar.

Schools will notify students of their readmission status. Students may be approved for readmission, approved for a conditional readmission (e.g., for part-time but not full-time study), or denied readmission.

Students who have been dismissed but can show compelling evidence that they have corrected the problem may be allowed to return to school without delay. Petitioning for readmission between the fall and spring semesters may not be possible, however, if the school requires that the petition go to a faculty committee. Check with the recorder of individual schools to determine the school's policy.

Grade Replacement Policy

The IUPUI Grade Replacement Policy (formerly known as the FX policy) was revised effective fall 1996. This policy allows approved undergraduate students seeking their first degree to repeat courses—a maximum of 15 credit hours subject to school/division approval—in order to improve poor grades, including grades of F. If a student earns the same or a higher grade after repeating the course, only the second grade will be counted in the cumulative GPA. Replacement does not happen automatically, so students must notify the school recorder that the course has been taken a second time and that they wish to exercise this option. Certain restrictions apply, and the grade replacement policy may not be honored by some schools when considering admission to the school or in computing graduation honors. For more information, students should contact their school/division.

The 15 credit hours limit includes any course(s) previously replaced using the FX policy. A student may exercise the Grade Replacement Policy no more than two times for a single course, and once invoked, a student may not reverse the grade replacement granted in a particular course. The replaced grade will be excluded from the cumulative GPA, but the course and the replaced grade will remain on the student's academic record with a notation indicating that the grade exists but is excluded from the cumulative GPA. The use of the forgiveness policy does not preclude a student from using grade replacement for course work taken subsequent to re-enrollment as defined by the forgiveness policy.

If the original course was taken on another IU campus, that campus must be willing to place the replacement flag on the course at IUPUI's request.

Not all IUPUI units accept the general policy as stated above. If a student changes programs, schools, or campuses to a program that does not recognize the Grade Replacement Policy, the original grades will once again be averaged into the student's GPA.

This policy is not available for graduate students or students seeking any second undergraduate degree. For a copy of this policy, contact the Office of the Registrar, or the registrar's Web site (registrar.iupui.edu/replace.html).

Auditing a Course

Students may audit a course, which means they can sit in on the course for no credit. The audited course will appear on the student's transcript with a grade of NC (no credit). The student must discuss course work expectations with the instructor, and it is up to the instructor to approve the student's request to audit the course.

Audited courses do not apply toward any academic degree and do not count as part of a student's full- or part-time load for purposes of financial aid or for loan deferments.

The tuition for an audited course is the same as that for a credit course.

Students considering this option should discuss it carefully with their academic advisor to see if this is the best choice or if another grading option, such as the Pass/Fail option, may be more appropriate.

In some cases, schools do not allow students to register for a class for credit after taking it on an audit basis. Students should consult their school recorder about this, especially before auditing a required course.

Students must pick up the audit forms from their school or division, secure the appropriate signatures, and submit the form to the Office of the Registrar by the deadline specified in the *Schedule of Classes* or visit registrar.iupui.edu/auditcrs.html.

Once invoked, the student may not reverse the credit status for the course.

Forgiveness Policy

IUPUI's Forgiveness Policy has established an effective way to encourage capable, mature undergraduate students to return to college even though they may have done poorly during earlier attempts at Indiana University. This policy does not cover graduate students or students seeking a second undergraduate degree.

The Forgiveness Policy is not available to students in all schools. A student granted forgiveness in one unit might have that forgiveness revoked upon transferring to another IUPUI school. This option only exists at the IUPUI campus and not at any other campus of Indiana or Purdue universities.

The general campus policy appears below. Students should contact school recorders to determine whether or not this option is available and

appropriate for them. Please note that the university computer system has not yet been modified to reflect changes made to the student's official record as a result of this policy.

IUPUI Forgiveness Policy (abbreviated version)

The spirit of the Forgiveness Policy provides the same fresh start to former IU students accorded to students transferring from other universities. The policy only applies to former IU students who have worked on a first undergraduate degree but who have not attended any college for a minimum of three years. Each IUPUI school can grant forgiveness, but other schools may refuse to accept the forgiveness policy when students change schools. Schools do not have to consider forgiveness for purposes of admission, granting of honors, or meeting the minimum GPA required for conferral of degrees.

Students must invoke this policy upon application for admission to a degree-granting school or submit a notification of intent to petition for academic forgiveness if not yet accepted by a school.

If the forgiveness petition is accepted, all courses previously taken will remain on the transcript, but only courses with grades of A+, A, A–, B+, B, B–, C+, C, P, and S may be counted toward degree requirements, though these grades will not count in the student's GPA. In effect, the student will start with a cumulative GPA of 0.0, after which all the rules of academic probation and dismissal will apply. Forgiveness may be invoked only once, and it does not preclude a student from using other grade replacement options available for course work taken after forgiveness is granted. Forgiveness is only available for courses taken at Indiana University.

Visit the registrar's Web site registrar.iupui.edu/forgive.html to see the entire policy.

Dropping or Adding Classes (Schedule Adjustments)

Students can make changes in their schedule (commonly known as add and drop) from the time of their initial registration up through the last day of the first week of the semester either by computer or with a Schedule Adjustment form. Drops after the first week of class require a student's advisor's signature and adds require that both the advisor and the instructor of the class be added. Students receiving financial aid should be aware that dropping from a full-load of 12 hours to six or less during the first week(s) of the semester may change the amount of aid a student is eligible for and require the student to repay some of the money already received.

Students must drop classes officially; stopping attending a class or even never attending the class does not cause the student to be dropped from the class. After the middle of the semester, students need the advisor's and instructor's signatures. In the final quarter of the semester, classes can only be dropped with the approval of the dean of the student's school. Such late withdrawals are usually approved only if illness or emergencies are involved.

Dropping classes is done using the Schedule Adjustment forms, which are available at University College and the offices of most schools. The forms must be filled out, signed, and returned to the Office of the Registrar, Cavanaugh, CA133.

While Ws do not change a student's GPA, more than ten withdrawals without well documented medical or other serious reasons will trigger the federal government's definition of "not making academic progress" and may result in the loss of eligibility for certain types of aid.

Refunds for Dropped Courses

Refunds are determined by the date the drop activity is processed by the IUPUI Office of the Registrar.

Refunds are based on the following schedule:

Courses Scheduled for 9-16 Weeks

For Withdrawal during:

1st week of classes	100% of course fees
2nd week of classes	75% of course fees
3rd week of classes	50% of course fees
4th week of classes	25% of course fees
5th week of classes and after	NO REFUND

For courses scheduled for fewer than nine weeks, see the Bursar's refund section of the *Schedule of Classes* for the specific semester.

Check the *Schedule of Classes* for exact refund dates. After the 4th week, if you decide not to attend a class, don't just walk away from the class without officially withdrawing from the class or from the university since you will receive F's in undropped classes.

The Office of the Bursar does not usually withdraw students from classes if they fail to pay their fees. Every student must officially withdraw from a class before the class is dropped from the student's record. If students do not withdraw, they will be awarded a grade of F and they will be required to pay for the course before they can register for additional courses in future semesters. Neither faculty nor advisors are authorized to withdraw students from classes.

Petition for Change of Grade

Students who believe their grades were recorded incorrectly or unfairly should contact their instructors, who can correct any errors in grading. If the faculty member is not available, students may speak to the chair of the department or the dean of the school.

If students follow the above procedure and are still dissatisfied with the grade recorded, they may obtain a Change of Grade form from www.registrar.iupui.edu/gradechg.html or in student affairs offices in all the schools. The form should be submitted to the school offering the course with documented reasons—reasons as serious as medical problems or military obligations—for altering the grade. Schools have special procedures and committees to consider petitions. The Office of the Bursar will not consider requests for refunds until a grade of W appears on a student's record.

Repeating Courses

If a student repeats a course, it will only be counted once towards graduation or electives in the major, though the grades will be calculated in the GPA.

Exceptions are variable topics courses, internships, or some other courses that can be taken more than once for credit. Courses repeated under the grade replacement policy may be excluded from the GPA. See the individual school's section of this bulletin to determine any restrictions on use of grade replacement.

Confidentiality and Access to Student Records

IUPUI, in compliance with the Family Educational Rights and Privacy Act (FERPA), provides that, with the exception of directory information, all student records are confidential and available only to the student.

The Family Educational Rights and Privacy Act affords students certain rights with respect to their education records. These rights include:

Access

Students have the right to inspect and review their education records within 45 days of the day the university receives a request for access. Students should submit to the registrar, dean, head of the academic department, or other appropriate official written requests that identify the record(s) they wish to inspect. The university official will make arrangements for access and notify the student of the time and place where the records may be inspected. If the records are not maintained by the university official to whom the request was submitted, that official shall advise the student of the correct official to whom the request should be addressed.

Students also have the right to request the amendment of their education records that they believe are inaccurate or misleading. They should write the university official responsible for the record, clearly identify the part of the record they want changed, and specify why it is inaccurate or misleading. If the university decides not to amend the record as requested by the student, the university will notify the student of the decision and advise the student of his or her right to a hearing regarding the request for amendment. Additional information regarding the hearing procedures will be provided to the student when notified of the right to a hearing.

Right to File a Complaint

Students have the right to file a complaint with the U.S. Department of Education concerning alleged failures by Indiana University to comply with the requirements of FERPA.

Confidentiality and Disclosure

Students have the right to consent to disclosures of personally identifiable information contained in their education records, except to the extent that FERPA authorizes disclosure without consent. One exception that permits disclosure without consent is disclosure to school officials with legitimate educational interests. A school official is a person employed by the university in an administrative, supervisory, academic or research, or support staff position (including law enforcement unit personnel and health staff); a person or company with whom the university has contracted (such as an attorney,

auditor, or collection agent); a person serving on the Board of Trustees; or a student serving on an official committee, such as a disciplinary or grievance committee, or assisting another school official in performing his or her tasks. A school official has a legitimate educational interest if the official needs to review an education record in order to fulfill his or her professional responsibility. Upon request, the university may disclose education records without consent to officials of another school in which a student seeks or intends to enroll. Finally, "public information" may be released freely unless the student files the appropriate form requesting that certain public information not be released. This form is available online at registrar.iupui.edu/confiden.html or from the Office of the Registrar.

Public information at IUPUI is limited to:

Name	School or Division
University E-mail Address	Class Standing
Major Field of Study	Degrees and Awards
Dates of Attendance	Activities
Admission or Enrollment Status	Sports and Athletic Information Campus

Parental Access to Student Records

Under the Family Educational Rights and Privacy Act, parental access to student records may be granted if the student is under 21 years of age and the parent certifies in writing that the student is a dependent as defined by the Internal Revenue Service (IRS). In the case of divorce either parent (custodial or non-custodial) has access to the record of a dependent student. Dependent students may prohibit parental access by filing a Restraint of Release of Student Information form with the Office of the Registrar. Information then will only be released to a third party by written permission of the student. This form is available in the Office of the Registrar.

Availability of Public Information

Certain student information maintained in the Office of the Registrar is considered public. The complete list appears above. The university maintains an online address book that allows a user to find a limited set of information for an individual student by searching on a student's name or university network id. The address book displays the student's school, major, class standing, and, if available, the student's e-mail address.

The university makes limited public information for a student available through the "Public Services" option of Insite. This screen displays a student's name, school, major, class standing, current and future semesters for which the student has registered, any semesters completed, and any degrees awarded to the student. The screen does not show the student's address, phone number, or any specific courses for which the student has enrolled or has completed.

IUPUI uses a course management system called Oncourse. Through Oncourse, all students enrolled in a course section will see the names of their

classmates unless a student has filed a Restraint of Release of Student Information form in the Office of the Registrar (see below). The list of names is only available to the instructor and those enrolled in the specific class and does not provide a student's complete course schedule. A student's course enrollment is available only to students enrolled in that course section and not to anyone outside of the university. Only the name will appear unless the individual student releases additional information to fellow classmates through use of the Oncourse profile system. See the Oncourse Student's Guide for additional information.

Restraint of Release of Student Information Form

If you do not want all or some of the information released to any person other than IUPUI faculty or staff, complete a Restraint of Release of Student Information form and return it to the IUPUI Office of the Registrar. A confidentiality flag will be added to your record by the Office of the Registrar. The restrainer will also block all information from appearing in the online address book, to classmates in Oncourse, or in the Public Services option of Insite.

To remove the restrainer, complete a Removal of the Restraint of Release of Student Information form and return it to the IUPUI Office of the Registrar.

These forms are available on the Web at registrar.iupui.edu/confiden.html or may be obtained in the Office of the Registrar.

Disclosures

From time to time, the university is served with a subpoena for portions of a student's record. In these cases, we will write to the student or the student's attorney (if known) and inform them that unless we receive written notification that the student will attempt to quash the subpoena, we will provide the information requested, even if the student has placed a restriction on his or her record.

A number of IUPUI degree programs prohibit enrollment to anyone listed on the Indiana Sex Offender Registry. The Office of the Registrar will notify the school dean of any student on the registry attempting to enroll in such programs.

Records of arrests and/or convictions and traffic accident information are public information and may be released to anyone making inquiry of the University Police.

For additional questions regarding the policy on the release of student information, contact the Office of the Registrar. For a full copy of the university policy on student records, see Appendix 4 in the *Code of Student Rights, Responsibilities, and Conduct*.

IUPUI does not provide lists of students or an individual student's address or phone number to outside businesses, agencies, students, or other parties. We will provide phone numbers in emergency situations and only following consultation with university police. However, because IUPUI participates in federal programs, we are required by federal law to make available to military recruiters

the name, address, age, and prior military service status of all students at IUPUI.

The university sponsors an Affinity credit card to IU students and alumni. A small portion of each charge is paid to the university while students and alumni have the opportunity to demonstrate their support of the university. A list of students is provided to the vendor each year for purposes of solicitation for this credit card only. Under the terms of the contract, the vendor may not share the list of students or alumni with other vendors. Students who have filed a Restraint of Release of Student Information form will not appear on this list.

Zachary's Law

The state of Indiana maintains a registry of individuals who have been convicted of sex offenses committed against minors. As a number of degree programs and specific courses either prepare students to work with minors or place them in contact with minors as a part of the course, enrollment in those courses or programs is not available to anyone who appears on the Sex Offender Registry. Consult individual school sections to see if appearance on the registry will be a barrier to enrollment. For more information, visit the Web site (registrar.iupui.edu/zachary.html).

Technology Access, Security, and Use

Indiana University has a rich information technology environment, and while some personal use of computers, networks, and telecommunications systems is permitted, access to these resources is provided primarily in support of academics, research, administration, and other University activities. Access to such an environment comes with responsibilities.

Use for personal commercial gain is not permitted under any circumstances, so students may not use IU resources to support a private business.

Chain mail and music and movie sharing programs (among other things) can cause a large amount of network traffic. Overuse of modems means that someone else may get a busy signal. Because all members of the campus community share technology resources, students must ensure that they are using only their fair share.

Students are responsible for ensuring that their personal computers are secure, and free from viruses and other malicious programs. Information about security and related issues can be found at the Web site of the University Information Technology Security Office (www.itso.iu.edu).

Illegal acts will be reported to the appropriate law enforcement agency. Such acts include harassment, threats, pyramid schemes, trafficking in child pornography, and computer trespass or tampering.

Many common uses of computers, photocopiers, and other technologies can result in violation of copyright law. Those who commit an infringement may be held personally liable under the law; those who commit the infringement with university-owned resources also violate university policy, and could face disciplinary actions. Students must make the effort to understand the copyright law that protects books, computer

software, Web sites, multimedia files such as movies and music, and other works. Remember that a work need not include any copyright notice or other indication of copyright to have automatic legal protection. Copying short excerpts of works for limited distribution and access may be "fair use" and not an infringement. Students are responsible for learning about fair use and its application to their projects. Information about copyright and fair use can be found at the Copyright Management Center site (www.iupui.edu/~copyinfo).

If the university receives any report of violations of law or policy perpetrated by any member of the IU community using IU resources, that report will be investigated and reported to the appropriate law enforcement and/or university office for possible action. Students should visit the Web pages of the University Information Technology Policy Office (www.itpo.iu.edu) to learn more about Indiana University information technology appropriate use policies, and the services of the Policy Office.

IU Policies on Equal Opportunity/Affirmative Action

Indiana University–Purdue University Indianapolis pledges to continue its commitment to achieving equal opportunity within the university and throughout American society. Specifically, our policy at IUPUI prohibits discrimination based on arbitrary considerations such as race, color, religion, national origin, sex, sexual orientation, marital status, age, disability, or veteran status. IUPUI will make every effort to recruit, hire, promote, educate, and provide services to persons based solely on their individual qualifications. Further, we will take affirmative action to overcome the discriminatory effects of traditional practices with regard to people with disabilities, minorities, women, and Vietnam-era veterans.

Our institutional ethic demands that we foster the best possible environment for doing our work as educators, learners, and supporters of the educational process. Therefore, IUPUI does not tolerate discriminatory harassment or intimidation of students, employees, or guests of the university, and responds to complaints of such treatment, providing proper remediation when harassment is determined to have occurred.

No qualified individual with a disability shall, by reason of such disability, be excluded from participation in or denied the benefits of university services, programs, or activities. Reasonable accommodations shall be afforded to the known physical or mental limitations of otherwise qualified individuals.

Questions, concerns, or complaints regarding IUPUI policy and practice with respect to discrimination or harassment may be directed to Lillian Charleston, Affirmative Action Officer, Administration Building, AO 127. Voice: (317) 274-2306, TDD: (317) 278-2200, e-mail: lcharles@iupui.edu.

Special Academic Opportunities

Special Credit Opportunities (Waivers and Credit)

Special credit policies and procedures vary with individual schools.

Special credit may be awarded to degree-seeking IUPUI students who possess, by previous education or experience, a background in a discipline represented by an IUPUI program. The categories under which students are awarded credit are (1) credit by credentials, (2) credit by experience, and (3) credit by examination. Each school and many disciplines have different policies that define how these mechanisms apply to students seeking credit.

Not all schools accept special credit, and special credit does not transfer to IUPUI from other universities. Changing schools at IUPUI may result in special credit awards not being used to meet degree requirements of the new school.

Students who establish eligibility for special credit must apply for the credit in the Office of the Registrar. The credit will be awarded at the following fee rate: (a) no credit hour fee for freshmen who apply for special credit during the first two consecutive semesters after entering the university, and (b) a nominal fee per credit hour for undergraduate transfer students if they apply during the first semester after entering the university. The nominal fee per credit hour also applies to students receiving special language credit for lower-level language courses, following the satisfactory completion of a higher-level course. Students who do not qualify for the above will pay the standard fee per credit hour at the appropriate resident or nonresident rate currently in place. Visit registrar.iupui.edu/speccred.html for more information.

Special Credit for Military Service

Some IUPUI schools grant college credit for military course work. Eligible students should submit a copy of their DD214 or DD295 form or military transcripts to the Office of Admissions, Cavanaugh Hall, CA 129. Students should check with their schools for more information.

Advanced Placement (AP) Credit

The College Board Advanced Placement (AP) tests are offered by participating high schools. IUPUI encourages high schools and their students to participate in the AP program and awards college credit at no charge in certain subjects to students who receive scores of 4 or 5. Some departments will give credit for scores of 3 as well. Contact the Office of Admissions to receive an informational brochure or visit enroll.iupui.edu.

CLEP Credit

The College Board College-Level Examination Program (CLEP) is also recognized by IUPUI, and it is available to both current high school students and to students who have already graduated from high school. The same brochure mentioned above shows how CLEP credit is handled. Information is also available at enroll.iupui.edu.

DANTES Credit

The Defense Activity for Non-Traditional Education Support (DANTES) Subject Standardized Test (DSST) is a subject-matter examination in college and technical subjects. Contact the Office of Admissions for information on the IUPUI policy for acceptance of DANTES credit. Information is also available at enroll.iupui.edu.

Departmental or School Proficiency Examinations

Many departments/programs award special credit to students who have demonstrated skills and/or knowledge equivalent to that taught in a given course. Some departments will allow students to take a comprehensive final to show such competencies. Such special credit is normally indicated with a grade of S, although some departments may award a grade of A if a student's performance on a departmental examination clearly merits it. In some cases, students will be charged a fee for the special credit. Consult the departments and programs about such tests, and see the *Schedule of Classes* for more information on the fees.

Special Credit for English W131

Some students are eligible to apply for special credit for English W131, *Elementary Composition I*. This option is open to students who have taken the IUPUI English placement test and placed into honors (English W140), and to transfer students whose previous institutions waived composition requirements without awarding credit. Eligible students can get more information about the special credit portfolio requirements from the English Department's Writing Program office, CA 343. Students who are eligible to submit special credit portfolios should be aware that credit is not always awarded; portfolios are evaluated by a faculty committee that determines whether credit should be awarded based on the essays submitted in the portfolio.

Special Credit for Foreign Languages

Students who have previously studied a foreign language may receive special credit by taking a placement examination and completing the course into which they were placed with a grade of C or better. The student may then apply for credit for the lower-division courses that they skipped. Students seeking such special language credit through the credentialing process described above must file an application for special credit and pay a nominal fee per credit hour for the additional credits. See the

Department of Foreign Languages and Cultures in Cavanaugh Hall, CA 408, and your home school for additional information.

There are restrictions for international students who are taking courses in their native language. They may earn credit at the 300 level but not at a lesser level.

Self-Acquired Competency Credit (Experiential Learning)

Credit may be granted in some schools for experience acquired outside of normal college courses. Credit may be available for course-specific learning or for non-course-specific learning within a discipline. Faculty will evaluate the experience and determine whether and how much credit should be awarded. Students may be asked to prepare a portfolio, take examinations, or document their learning in other suitable ways so that the faculty can make a judgment. While General Studies accepts up to 15 credit hours for the Associate and up to 30 for the Bachelor of General Studies, most schools either do not accept such credit or limit the number of acceptable credits to 12 credit hours towards a degree. If a student changes schools within IUPUI, self-acquired competency credit awarded by one school may not count in the new school.

Consortium for Urban Education (CUE)

IUPUI is a member of the Consortium for Urban Education (CUE), Indianapolis. Through CUE, an IUPUI student can enroll in and receive credit for courses not offered by IUPUI but available at another member college. An IUPUI student registered in such courses is subject to IUPUI's fees and payment procedures. Visit registrar.iupui.edu/cue.html for more information.

Honors Program

The IUPUI Undergraduate Honors Program: Philosophy and Requirements

The IUPUI Undergraduate Honors Program, housed in University College, challenges students to strengthen and enrich their university education. The program raises student academic achievement and increases intellectual vitality throughout the campus, the Indianapolis community, the state, and beyond. The Honors Program accomplishes this by being highly inclusive and offering students a number of different access points. Unlike most traditional honors programs, IUPUI's accommodates the educational needs of beginning traditional and nontraditional students, returning students, and part-time students, while consistently maintaining an emphasis upon academic excellence.

Participation in Honors

The Honors Program is available to students at all levels of university study. All qualified undergraduates, including entering freshmen, may take courses offered through the Honors Program. Students receive permission to register for honors work based

on merit criteria, which stress aptitude, motivation, and past attainment.

Freshmen

Entering freshmen are automatically invited to participate in the Honors Program when they have a minimum combined SAT score of 1180 or ACT of 26 or have graduated in the upper 15 percent of their high school class. Entering students who have been unconditionally admitted to University College are eligible to participate in honors courses. To be considered for participation, all entering students must complete an application and an interview with an Honors Program counselor. All full-time entering students are required to participate in a learning community. Those qualifying as honors students will, insofar as is possible, be placed in honors learning communities that are designed to attract and retain incoming honors candidates.

Continuing Students

Continuing students automatically qualify for participation in honors courses if they have earned a minimum of 12 credit hours with a GPA of at least 3.0. This makes them eligible to enroll in honors classes, earn honors credits by completing H-options, specially tailored work attached to a non-honors course, and participate in honors activities. Students who do not meet the criteria for automatic participation in honors courses, but who are seriously interested in the Honors Program, are encouraged to speak directly with one of the Honors Program's advisors. The Honors Program recognizes that motivation, enthusiasm, and interest are often much more accurate indicators of success than simple numerical criteria. This flexibility assures that honors opportunities are available to all those students who wish to benefit from them or to contribute to them.

Honors Students and Bachelor's Degrees

It is important to note that while all qualified students may participate in the Honors Program, not all will qualify to earn honors degrees. The Honors Program offers students the opportunity to earn honors credit that can lead to completing their degree "with honors." Those students enrolled in honors courses who maintain a minimum overall GPA of 3.3 and at least a 3.3 in honors courses are eligible to earn "honors" degrees. Additionally, students must complete one 3 credit hour "Honors Integrative Experience" course. Honors students are distinguished by having completed their degree "with honors," signifying not only that they have performed at a very distinguished level of academic achievement but also that they have been exposed to the principles of undergraduate learning and to interdisciplinary course work.

In order to complete a bachelor's degree with honors, students must fulfill their degree requirements and specific honors requirements in either of the tracks below.

1. Honors First-Year Seminar or the Equivalent (1-3 cr.)
2. Honors Undergraduate Research Project or Equivalent (3 cr.)

3. Honors Integrative Experience (3 cr.)
4. Honors Senior Thesis/Project (3-6 cr.)
5. At least two additional honors courses, selected in consultation with an honors advisor (6 cr.)

TOTAL CREDIT HOURS—With Senior Thesis, 21 credit hour minimum.

Students who decide against doing the Senior Thesis/Project must replace number 4 above with three other approved honors courses or H-options. They need 24 credit hours in all.

Of the 21-24 credit hours of Honors work required to earn the Honors notation, at least nine of those hours must be taken in courses approved by the Honors Council for Honors credit. Graduate level courses, that is courses numbered 500 or higher, will automatically qualify as honors courses. The remainder of the credit hours may be taken as H-options, H399 Honors Independent Research, or H499 Honors Thesis. At least six of these nine hours must be completed at IUPUI.

Honors Associate's Degrees

Candidates for the honors associate's degree must complete the Honors Undergraduate Research Project (3 cr.), the Honors Integrator Experience (3 cr.), and two additional honors courses (6 cr.), in addition to completing all regular associate's degree requirements with a minimum overall GPA of 3.3 and at least a 3.3 GPA in honors courses.

Departmental or School Honors Programs

In addition to the general Honors Program that is open to all qualified students, there are now honors programs in ten departments, each with its own requirements: Departments of Biology, Chemistry, Communication Studies, French, Geology, German, Occupational Therapy, Philosophy, Political Science, and Psychology. Honors degrees also are offered by the Kelley School of Business, the School of Nursing, and the School of Public and Environmental Affairs. For information on the requirements for these programs, see each school's section in this bulletin.

Honors Scholarships

The honors programs provide scholarships for highly qualified individuals who participate in the Honors Program.

University College Honors Scholars \$1,250 renewable for one year. Students who meet one of the qualifications for the IUPUI Academic Excellence Scholarships may compete for an honors scholarship. Applications are available in the Scholarship Office or in the Honors Program Office. An essay is required. Honors scholarship recipients may choose a laptop computer rather than a monetary award in the first year. Students must attend full time (minimum of 12 credit hours) and maintain at least a 3.0 GPA each semester. March 1 is the admission and application deadline.

IUPUI Honors Scholars \$1,250 renewable for three years. Students who qualify for the IUPUI Academic Excellence Scholarship may compete for a four-year honors scholarship. Applications are available in the Scholarship Office or in the Honors

Program Office. An essay is required. Honors scholarship recipients may choose a laptop computer rather than a monetary award in the first year. Students must attend full time (minimum of 12 credit hours) and maintain at least a 3.0 GPA each semester. March 1 is the admission and application deadline.

IUPUI Honors Upperclass Scholars \$1,250 for one year full time; \$625 for one year part time. Recipients may reapply and receive this scholarship for a maximum of three years. Talented and motivated students who have demonstrated their academic abilities either by distinguishing themselves in honors courses or by completing at least 12 credit hours with a 3.0 GPA or higher are eligible for this scholarship. Applications are available in the Scholarship Office or in the Honors Program Office. An essay is required. Students must maintain at least a 3.0 GPA each semester. This scholarship is available to both full- and part-time students.

Check with the Honors Program Office for forms, application deadlines, and additional information about these scholarships.

Honors Club

The Honors Club is dedicated to uniting people interested in maximizing their educational opportunities. The club provides social, educational, and community service opportunities for the student body and faculty that enhance the learning environment at IUPUI and in the community. Membership is open to all university students, faculty, and staff. Monthly meetings, along with specially planned activities, offer students, faculty, and staff numerous opportunities for enhancing their educational endeavors. For more information, contact the Honors Program Office at (317) 274-2660.

School Honors

Dean's Lists

All schools recognize outstanding academic achievement through the undergraduate Dean's Lists. Each school's requirements may vary for full- and part-time students but are based on students' work for one regular semester. Students should check their own school's materials in this bulletin for more information.

Graduation with Distinction

In the Indiana University schools, students in the top 10 percent of their class are awarded bachelor's degrees with three levels of distinction: distinction; high distinction; and highest distinction. The level of distinction is determined by the overall Indiana University GPA, and the specific minimum GPA requirements are determined each year by the individual schools. Students must have taken 60 graded credit hours at Indiana University. The level of distinction is printed on both the final transcript and the diploma. At commencement ceremonies, these graduates wear cream and/or crimson cords, depending on the level of distinction.

In the Purdue schools, students receiving Purdue degrees receive high and highest distinction, while geology students who receive IU degrees may be awarded distinction, high distinction, and highest distinction. To be eligible, candidates must complete

all their degree programs' requirements and meet the following conditions: (1) a minimum of 65 credit hours of course work from Purdue University or Indiana University applicable to the graduation index (degree grade point average) must be on record; (2) the minimum graduation index for distinction (Purdue and IU degrees) shall be no less than the 90th percentile of the graduation indexes of all the graduates in the school for the spring semester, provided that the index is at least 3.30. The minimum graduation indexes determined for the spring semester for graduation with distinction, high distinction, and highest distinction shall be applied for graduation with those respective levels of distinction for the subsequent summer sessions and fall semester. At Commencement ceremonies, these graduates wear black and/or gold cords.

Consult the sections for the Schools of Engineering and Technology and Science for more information.

University College Honoraries

University College sponsors two freshman honoraries, Alpha Lambda Delta and Phi Eta Sigma. Students from any unit of the university are eligible for membership in these honoraries if they earn a minimum GPA of 3.5 in their first semester or first year of college, are registered as full-time students, and are pursuing a four-year degree. University College also sponsors Alpha Sigma Lambda, a national honorary for part-time adult students.

Discipline-Based Honoraries

Many professions and disciplines at IUPUI have chapters of the undergraduate national honoraries associated with their field of study and regularly induct outstanding students majoring in their fields into these organizations.

Undergraduate Research Programs

IUPUI has established the campus-wide Undergraduate Research Opportunities Program (UROP) to encourage and recognize undergraduates who participate in research and other creative projects with faculty in all disciplines, including music and art. This program provides students connections to faculty research projects across campus and urges undergraduates to participate in research as early as possible. An annual Undergraduate Research Symposium is held each year to showcase student work. Students may apply for grant support for their projects and travel money to facilitate their participation in professional meetings within their discipline. Formal research credits may be earned toward graduation. Further information may be obtained from the UROP director, Kathryn Wilson, Ph.D., Science Building, LD 222; e-mail kjwilson@iupui.edu; telephone (317) 278-1028.

Service Learning Classes

Service learning involves students in community service as part of a specific course. For example, students in a writing course may complete a writing

project for a not-for-profit agency as part of their course work, or students in environmental science may participate in a wetlands planting project. Students in an introductory psychology course may read with children in a local elementary school, or business majors in a learning community course may team teach an economics unit for third graders. Service learning, however, is more than just doing something in the community; students also relate the service experience to course objectives through structured reflection and learning activities. The service component can be an integral part of the entire course or an option to replace another class assignment. Service learning is designed to give students further understanding of course content, a greater appreciation of the discipline, and an enhanced sense of civic responsibility.

Service learning provides an opportunity for students to be actively involved in the learning process. Service experiences help to clarify career goals and develop personal competencies and leadership skills. A variety of service learning courses are offered at IUPUI, and a list can be found in the *Schedule of Classes* under "Service Learning" or by contacting the Office of Service Learning in the Center for Service and Learning, University College, UC3116, (317) 278-2662.

Reserve Officers' Training Corps (ROTC)

Army ROTC

A very active Army ROTC Program is available to all qualified students. Four-, three-, and two-year scholarships are awarded on a merit basis. Scholarships will pay 100 percent of tuition, as well as \$600 annually toward books, lab, graduation, and educational fees. A \$2,000-\$4,000 tax-free stipend is paid each year the scholarship is in effect, based upon the student's class standing.

Students may enroll in the ROTC program on a voluntary or exploratory basis during the first two years. Books, tuition, and supplies are provided free of charge. Elective credit hours are awarded for the freshman and sophomore classes. Students do not incur any military obligation until enrollment in the third-year course, or upon accepting an ROTC scholarship.

Advanced placement is available to veterans and members of the Army Reserve or National Guard. Non-scholarship third-year students also receive a \$3,000-\$4,000 tax-free stipend per year. In most cases, active reservists and veterans receiving the GI Bill may participate in the ROTC program with no loss of benefits. Army ROTC is also offered to transfer and graduate students. Completion of the program may lead to a commission as a second lieutenant in the Regular Army, Army Reserve, or Army National Guard. For more information about the Army ROTC, call (317) 274-2691, send e-mail to armyrotc@iupui.edu, or visit the Web site (www.iupui.edu/it/iupurotc/iupurotc1.html).

Air Force ROTC

Eligible and qualified men and women may elect to earn credits leading to a commission as a second

lieutenant in the United States Air Force through a program located on the Bloomington campus. Credits earned in the Air Force ROTC may be applied toward the required number of credit hours for graduation. For more information on the Air Force ROTC, call (812) 855-0917.

IUPUI Internship Program

The IUPUI Internship Program is a self-directed program designed to help students obtain professional work experience related to their field of study. The Internship Program teaches students how to conduct effective internship job searches, monitors certain credit-earning internships, and assists students throughout the internship experience.

Internship positions may be full or part time, paid or unpaid, credit earning or non-credit. Academic credit may be offered at the discretion of the participating school or department. Credit-earning internships are similar to traditional courses in that documentation such as term papers will be required prior to receiving credit on a student's transcript.

In order to participate in the IUPUI Internship Program, students must meet the following eligibility requirements: 1) Current enrollment in a degree or certificate program at IUPUI. 2) Sophomore status. 3) Cumulative GPA of 2.5 or higher. 4) Complete one full semester at IUPUI prior to the start of the internship. In addition, credit-earning internships are subject to the eligibility requirements of their academic department.

For more information regarding the IUPUI Internship Program, stop by the IUPUI Career Center at BS 2010 or call 274-2554. Information is also provided on the IUPUI Career Center's Web site at www.iupui.edu/~career. It is expected that interested students attend one of the frequently scheduled Internship Workshops for specific information regarding internships.

Study Abroad Programs

IUPUI Study Abroad Opportunities

IUPUI offers a variety of study abroad opportunities administered either by the IUPUI Office of International Affairs or by individual schools and departments. Students may also participate in programs run through Indiana University or Purdue University. International Affairs coordinates programs with partner universities in Germany, Russia, and Costa Rica. The office also verifies the applicability of overseas transfer credits from other institutions and provides information on scholarships and financial aid.

The Herron School of Art offers programs in China, Vietnam, Belgium and the Netherlands, England, and France. These programs are open to non-Herron majors as well. The Department of Communication Studies offers short-term summer programs in Poland and London. The Department of Geology is offering new programs in Cuba and the Galapagos Islands. Journalism students travel to Croatia. The

Department of English offers a tour of the literary landscapes of England. Nursing, Social Work, Law, and Medicine also administer international programs. Please refer to individual departments for specific information.

For study abroad advising, please contact the Office of International Affairs, Union Building, UN 203, (317) 274-2081, www.international.iupui.edu.

Indiana University Study Abroad Programs

IUPUI students are eligible to participate in foreign study programs run by Indiana University. These programs offer qualified students the opportunity to do part of their academic work abroad. Both IU and Purdue majors may apply for IU summer programs overseas. For semester programs students must apply to either Purdue or IU, depending on their major.

The IU programs include full academic year programs in Canterbury, England; Aix-en-Provence, France; Legon, Ghana; Freiburg, Germany; Jerusalem, Israel; Bologna, Italy; Nagoya, Japan; and Madrid, Spain. Semester programs include exchange programs with Australia as well as programs for future Spanish teachers in Seville, Spain. There are also summer programs for students wishing to study foreign languages abroad, short-term study trips, and internships. At present, there are over 60 opportunities for study abroad.

IU's programs are not only intensive educational experiences but include cross-cultural learning. Groups are often accompanied by IU faculty, and year-long programs are usually preceded by intensive language/culture work to prepare the students for enrollment in regular university courses.

Participants receive regular Indiana University credit, not transfer credit. Six (6) credit hours are customary for summer programs, 15-16 credit hours in semester programs, and 30-32 in the academic year programs. Students may apply for financial aid or a number of attractive scholarships.

Detailed information can be found on the Web site of IU Overseas Study (www.indiana.edu/~overseas) or by contacting the Office of International Affairs, (317) 274-2081, or the Department of Foreign Languages and Cultures, Cavanaugh Hall, CA 405.

Purdue University Study Abroad Opportunities

Purdue University currently has about 40 study abroad opportunities, some of which are summer programs while others are semester or academic year courses. Programs in Japan, Sweden, Switzerland, Martinique, and Brazil are a few of the locations. Students in Purdue programs at IUPUI will receive regular credit for these programs, while students in IU degree programs will receive transfer credit. Contact Purdue University's Programs for Study Abroad at (765) 494-2383, e-mail studyabroad@ippu.purdue.edu, or visit www.ippu.purdue.edu/sa/welcome.cfm.

Requirements for Admission to the Undergraduate Program—School of Education

New students indicating education as their choice among academic programs and education majors transferring to IUPUI from other colleges and universities are admitted to the University College or are dually admitted to the University College and the School of Education. Students must have a 2.5 overall GPA to be admitted to the School of Education.

Note: Admission to the school does not guarantee admission to Teacher Education. Admission to the School of Education, admission to Teacher Education, and graduation require a minimum overall GPA of 2.5.

Admission to the Teacher Education Program

Students wishing to obtain a teaching certificate must be admitted to the Teacher Education Program. Education majors should note that admission to the School of Education is separate from admission to the Teacher Education Program. The standards for admission to the Teacher Education Program apply both to education and non-education majors. The standards must be met before the student may enroll in advanced professional education courses.

Note: Admission to the Teacher Education program does not guarantee licensure by the state of Indiana.

See the "School of Education" section of this Bulletin for more information.

Teacher Certification

With careful planning, students may earn a standard junior high/middle school/secondary teacher's certification while working for a bachelor's degree in the Schools of Liberal Arts, Herron, Science, and Physical Education. Such candidates must meet both the degree-granting school's graduation requirements and the certification requirements for the School of Education. Students earning certification must meet the general education, professional education, and subject matter course requirements in the area in which they wish to be certified, as outlined in this bulletin. They must also complete a minimum of 124 credit hours.

Alternative programs for post-baccalaureate students may be available for selected majors. Contact an advisor in the School of Education for further information.

Pre-Professional Programs

Pre-Medical Program

Students planning to apply to medical school must choose a degree program in addition to taking

courses that fulfill the admission requirements for their chosen medical school. While many opt to complete their degrees with science majors, other fields of specialization are acceptable and even desirable. Freshmen should declare their chosen major and seek advising for their degree requirements from the advisor in their major department. IUPUI also offers health professions advising in the School of Science (Biology and Chemistry) and the School of Liberal Arts. Pre-medical students should consult the health professions advisor in their school once they have completed the 10 credit hours of biology and 10 credit hours of inorganic chemistry required for medical school in order to plan the timing for the MCAT test and the admission process to medical school.

Pre-Dental, Pre-Veterinary, Pre-Optometry Programs

Admission to professional schools is highly competitive. The pre-professional student is therefore urged to elect a degree program rather than fulfilling the minimum requirements of these schools. Students who choose pre-dental, pre-veterinary medicine, and pre-optometry are usually placed in the Department of Biology where pre-professional advising is available. Pre-dental students are also encouraged to meet with the health professions advisor in the School of Science to plan for the testing and admission process required by dental schools. Refer to the Department of Biology section of this bulletin for the required courses for Indiana University School of Optometry and Purdue University School of Veterinary Medicine. A list of required courses for the IU School of Dentistry is available in the Department of Biology section.

Graduate students holding non-science degrees who are electing courses in the School of Science to prepare for medical or dental school are also invited to use the health professions advising service for help with the admission process.

Pre-Pharmacy Program

The pre-pharmacy program at IUPUI consists of approximately 70-90 credit hours of course work required to apply to pharmacy school. Students declaring pre-pharmacy upon admission to IUPUI are assigned to the Department of Biology where pre-pharmacy advising is available. After completion of the required courses for admission, students apply to the pharmacy school of their choice. Refer to the Department of Biology section of this bulletin for required courses to apply to the pharmacy program at the Purdue School of Pharmacy and Pharmacal Sciences.

Pre-Law Program

While law schools do not require a specific undergraduate major or a specific set of undergraduate courses as prerequisites for admission, they do urge students to take additional writing and public speaking, as well as courses involving research and analysis. The Department of Political Science in the School of Liberal Arts and SPEA provide pre-law advising and a series of courses

related to the law and government that are attractive to students interested in the study of the law. Other schools also offer courses of relevance to students considering the study of the law.

Commitment to Writing

Writing Across the Curriculum/Office of Campus Writing

Writing is so central to learning and communicating information, knowledge, and understanding to others that it is a part of the curriculum in all undergraduate schools at IUPUI. In addition to the core writing program situated in the Department of English and the University Writing Center located in Cavanaugh Hall, IUPUI has an Office of Campus Writing located in the Office of Professional Development in the University Library. It provides support for courses that require a significant writing component, assesses the overall quality and quantity of writing done by students at IUPUI, and correlates the expectations of faculty, the accomplishments of students, and the needs of employers in the community with respect to written communication. The Director of Campus Writing offers workshops throughout the year for faculty who wish to integrate writing more effectively into their courses. For more information, call (317) 278-1846.

University Writing Center

The University Writing Center provides tutoring for students, staff, and faculty on all kinds of writing assignments and projects. A tutoring staff consisting of faculty and peer tutors work with their clients to understand assignments; brainstorm ideas; relate purpose and audience; develop, organize, revise, and edit pieces of writing.

The University Writing Center also offers essay exam workshops, a reference library on writing concerns, and a national Hotline for answers to brief questions. The University Writing Center Hotline can be reached online (writctr@iupui.edu) or by telephone at (317) 274-3000.

The University Writing Center is located in Cavanaugh Hall, CA 427. For more information or an appointment, call (317) 274-2049.

The University Writing Center also has a branch in University College. Call (317) 274-3288 for more information.

Technical Writing Center

In the Technical Writing Center, ET 314A, tutors are available several hours weekly to help students with their writing assignments. Tutors focus on writing assignments from faculty members in the School of Engineering and Technology; however, they can assist students with other writing tasks, as well. Students should sign up for an appointment on the board outside of ET 314.

Graduate and Professional Programs

Students can earn an Indiana University graduate or professional degree, an Indiana University Graduate School graduate degree, or a Purdue University graduate degree on the IUPUI campus. A few of the degrees offered at IUPUI are offered in conjunction with either the Bloomington or West Lafayette campus and may require work on one of these two campuses. For specific information about a degree program on the IUPUI campus, please contact the school or department offering the degree or see www.iupui.edu/~resgrad/grad/academics_content2.htm.

The following bulletin pages provide general information about various programs on the IUPUI campus. Please see the "IUPUI Graduate Office" section of this bulletin or the above URL for additional information and resources. Students may apply to almost all graduate and professional programs online; students should navigate to the online application through the informational materials provided on each department's Web site.

Purdue Graduate Programs in Engineering

The Purdue School of Engineering and Technology offers six graduate degrees: the Doctor of Philosophy in Biomedical Engineering (Ph.D.), the Master of Science in Biomedical Engineering (M.S.Bm.E.), the Master of Science in Electrical Engineering (M.S.E.E.), the Master of Science in Mechanical Engineering (M.S.M.E.), the Master of Science in Engineering (M.S.E.), and the Master of Science (M.S.).

Another degree program, leading to the Master of Science in Industrial Engineering (M.S.I.E.), is administered with approval of the School of Industrial Engineering at Purdue University, West Lafayette. Qualified students may be authorized to pursue the Ph.D. degree in electrical engineering or mechanical engineering at IUPUI; these programs are administered with the respective approval of the School of Electrical Engineering and the School of Mechanical Engineering at Purdue University, West Lafayette. Students are usually expected to complete the M.S.E.E. or M.S.M.E. before pursuing the Ph.D. degree.

Graduate courses are usually offered in the evenings to meet the needs of part-time students employed in the Indianapolis area, as well as traditional students who are preparing for careers in research-directed areas.

For more information, call (317) 274-9740, e-mail grad@engr.iupui.edu, or visit the Web site (www.engr.iupui.edu).

Admission Policies and Procedures

To be considered for admission into the graduate engineering programs mentioned above, an applicant

ideally should have graduated from an engineering program accredited by ABET, the Accreditation Board for Engineering and Technology, Inc. The final undergraduate grade point average should be at least 3.0 (out of 4.0) or equivalent as shown on the official transcript.

All applicants are encouraged to take the General Aptitude Test of the Graduate Record Examination (GRE), but all international applicants are required to take the GRE. Students whose native language is not English are required to have a score of 550 or higher on the TOEFL (Test of English as a Foreign Language). Information on testing dates and locations can be obtained from the IUPUI Graduate Office, Union Building, UN A203; telephone (317) 274-4023.

Graduates from non-ABET-accredited programs and others who do not meet the above requirements may be considered for admission to the Master of Science degree program or for admission to the Master of Science in Engineering program. Candidates must be graduates of fully accredited (e.g., by the North Central Association of Colleges and Secondary Schools, or comparable accrediting agency) four-year programs, including four-year technology programs. Formal admission to either the M.S. or the M.S.E. programs requires departmental approval as well as the completion of the following requirements:

1. Graduating grade point average (GPA) of at least 3.0 (on a scale of 4.0) or equivalent from an accredited bachelor's degree program with a strong emphasis in engineering, mathematics, or the physical sciences.
2. Completion of the engineering calculus sequence: MATH 163 and MATH 164 Integrated Calculus and Analytic Geometry I and II (10 cr.) MATH 261 Multivariate Calculus (4 cr.) MATH 262 Linear Algebra and Differential Equations (4 cr.)
3. Completion of a number of undergraduate courses in electrical or mechanical engineering, or equivalent course work, depending on the specialty of the student. Equivalence of courses is determined by the graduate committees of the respective engineering programs. For more information, see the graduate program handbooks of the respective programs.

Admission as a Regular Graduate Student

Applications for admission may be obtained by writing to either the Department of Electrical Engineering or the Department of Mechanical Engineering at the Purdue School of Engineering and Technology, 723 W. Michigan St., IUPUI, Indianapolis, IN 46202-5132; telephone (317) 274-9726 or (317) 274-9717. Electronic application is available on the school's Web site (www.engr.iupui.edu).

International students should allow six months for the processing of their applications. Students residing in the United States should apply at least three months before the beginning of the semester in which they wish to enroll. Applicants will be formally advised of the final admission decision by the dean of the Graduate School, Purdue University, West Lafayette.

Admission as a Graduate Nondegree Student

This classification is intended for those who want to pursue study beyond the bachelor's degree but who do not have specific degree objectives. It is not intended to be a form of probationary admission to a regular degree program.

It is possible for a student registered in this classification to apply for admission to the Graduate School as a regular graduate student. However, if admitted as a regular graduate student, an individual may apply no more than 12 credit hours earned as a temporary graduate student to an advanced degree program. The grade for each course involved must be at least a B.

Students who have already earned 12 credit hours under the temporary classification will not be able to count toward their degree programs the credit earned during the semester in which acceptance as a regular graduate student is pending, unless admission is approved before the end of that semester. Furthermore, credit earned in courses taken while admission is pending may be applied to the advanced degree only if those courses are appropriate to the degree program and acceptable to both the School of Engineering and Technology and the Graduate School. No more than 12 hours of credit resulting from a combination of excess undergraduate credit and credit earned in postbaccalaureate status may be applied toward an advanced degree. Students should consult their advisors for further guidance.

Students interested in the temporary graduate student classification, which is also referred to as "postbaccalaureate nondegree enrollment," should contact the IUPUI Graduate Office, Union Building, UN 518; telephone (317) 274-1577.

Undergraduate and Transfer Credit

Course credits earned while an undergraduate at IUPUI or other accredited institutions of higher learning may be applied toward an advanced degree if these credits are in excess of any requirements for the bachelor's degree. Such credits must be certified as available for graduate credit by the institution from which the student received the bachelor's degree, and they will be accepted only if all of the following conditions are met: (1) the student had senior standing when taking the course, (2) the student received a grade of B or better, (3) the course was designated as a graduate course, and (4) the course was taken at the graduate level.

No more than 12 hours of credit resulting from a combination of excess undergraduate credit and credit earned in postbaccalaureate status may be applied toward any advanced degree. Any additional conditions under which excess undergraduate credit may be used for graduate credit will be determined by the School of Engineering and Technology.

Credits earned for graduate study at other universities may be applied toward an advanced degree as transfer credit, subject to the following restrictions: (1) A student must have earned a grade of B or better in any graduate course whose credit hours are to be transferred; (2) course work used to satisfy the requirements of one master's degree may not be used

on the plan of study for another master's degree; and (3) course work from one (and only one) master's degree may be used on the plan of study for a doctoral degree. Any additional conditions under which credit transfers may be made will be determined by the School of Engineering and Technology.

Graduate Degree Requirements

To earn a master's degree, students must satisfy the following requirements:

1. Students must maintain regular graduate student standing.
2. All regular students are required to demonstrate acceptable proficiency in English composition before a plan of study may be filed or an advanced degree obtained. If the necessary substantiation of English proficiency as outlined below is contained in the application, English clearance will be given automatically upon acceptance into a degree program. If substantiation is lacking on the application, the student is expected to satisfy this requirement during the first term of enrollment.

A student whose first language is English may meet the English requirement in any of three ways:

- a. by receiving a grade of B or better in all undergraduate courses in English composition;
- b. by submitting an official record from the Educational Testing Service, showing a scaled score of 600 or higher on the verbal portion of the GRE aptitude test;
- c. by passing the English proficiency examination administered by the English department at IUPUI. Students may call (317) 274-9740 to arrange for the examination. Those students with deficiencies are required to take an English composition or communications course within the first year of graduate study.

A student whose first language is not English—and who has scored higher than 550 on the TOEFL—may meet the English proficiency requirement by successfully passing the English proficiency examination administered by IUPUI's Department of English. Those students with deficiencies are required to take an English composition or communications course within the first year of graduate study (ENG W131, TCM 360, or equivalent).

Nonnative speakers of English who are U.S. citizens or who hold permanent visas may satisfy the written English proficiency requirement by any of the methods described above.

3. Students must file a plan of study appropriate to meet their needs in their chosen field of study. A tentative plan should be drawn up by the student and the graduate advisor in advance of registration for the first semester of graduate work. The formal plan of study must be filed as soon as possible thereafter but before the completion of 15 credit hours toward graduation. Students who have not filed a plan of study before the completion of 15 credit hours may not be allowed to register for the following term. The

plan of study must be approved by the advisory committee and the Graduate School. The English requirement must be fulfilled before the plan of study can be filed.

4. Students must meet credit, grade, and index requirements. The number of required credit hours varies between 30 and 33 among the master's degree programs offered at IUPUI. Only grades of A, B, or C are acceptable in fulfilling Graduate School requirements for any plan of study. An advisory committee may require a grade of B or better in certain courses. Pass/Fail grades are not acceptable in fulfilling degree requirements. Incomplete course grades must be cleared by the twelfth week of the second semester after the session in which the Incomplete was awarded. All graduate students are expected to maintain a minimum cumulative grade point average of 3.0 out of a possible 4.0. Students who do not have a cumulative GPA of 3.0 are considered under probation. Those students who are on probation are required to take additional graduate courses, as required by their respective graduate committees, before they are permitted to graduate.
5. Students must pass the required oral and written examinations. A final examining committee, usually the advisory committee, is appointed for each master's degree candidate. The committee must certify to the Graduate School either that the student has passed the required examination or that the committee is satisfied with the accomplishment of the student as based on a committee conference.

This bulletin lists the admission requirements, curricula, graduation requirements, and course descriptions for each program that were in effect at the time of printing. Course content and curricula may be changed to reflect the needs of business, industry, and government. Students are responsible for obtaining the latest course and curriculum information from their academic advisors.

Graduate Programs in the School of Science

Purdue Master of Science degrees are offered in biology, chemistry, computer science, mathematics, physics, and psychology. An Indiana University Master of Science degree is offered in geology. Departments in the School of Science strive to provide programs that serve the state and surrounding community, and students should consult their departments for any new programs or program emphases. Master's programs are at least 30 credit hours (some programs require more) and may be either non-thesis or thesis degrees. A Purdue Ph.D. is offered in clinical rehabilitation psychology. Purdue Ph.D. degrees, with all the work completed at IUPUI, are offered through West Lafayette in all departments except computer science and geology. Indiana University Ph.D. degrees are offered through the IU School of Medicine in biology, physics, and chemistry. For further information on Ph.D. programs, consult the School of Science section of this bulletin.

General Admission Requirements

Students seeking graduate degrees in the School of Science will be admitted as degree-seeking graduate students if they meet the following general qualifications:

1. They ordinarily will be expected to hold a baccalaureate degree from a college or university of recognized standing.
2. They must submit an official transcript from each college or university attended. Other evidence of academic accomplishment and aspirations may be required by some departments. Three letters of recommendation are required.
3. For unconditional admission to a degree program, a B or better average in prior study is required. Individual departments may set higher grade requirements and may require the submission of additional evidence of academic performance.
4. A minimal score of 550 in the Test of English as a Foreign Language (TOEFL) is required for all international applicants whose native language is not English. Some departments may have higher standards. Applicants may substitute the IUPUI English as a Second Language (ESL) Placement Examination for the TOEFL. A brochure about this test is available from the Office of International Affairs, Union Building, UN 207. All graduate students who are nonnative speakers of English who are being offered positions that involve direct student contact are required to take the Speaking Proficiency English Assessment Kit (SPEAK) Test administered by the English as a Second Language Program (ESL). Students must receive a score of at least 40 to be approved for direct student contact. Departments can provide further information about this test.

Graduate Record Exam

All degree-seeking applicants are encouraged to take the Graduate Record Examination (GRE). Most programs in the School of Science require this examination. Specific GRE score requirements are specified by each department.

General Requirements for Degree Completion

Once a student is admitted to a graduate degree program in the School of Science, there are several general requirements to complete a degree.

1. Each student must file a plan of study that includes a primary area and may include a related area or areas that are chosen on the basis of the student's interests and needs. A tentative plan of study should be drawn up in advance of registration for the first semester of graduate work. The student and the individual graduate advisor should prepare this plan. The formal plan of study should be submitted as soon as possible and before the final semester.
2. Only grades of A+ to C are acceptable in fulfilling Graduate School requirements in any plan of study. An advisory committee or department may require higher performance than C in certain courses. A grade of "Pass" is not acceptable. Specific cumulative grade point average requirements, if any, are up to the individual departments.

3. Students must complete the credit hours of work required, which may vary by department. Students must meet the Graduate School's resident study requirements.
4. Students must fulfill departmental requirements regarding oral and written examinations. The Graduate School has no general requirement for oral and written examinations for the non-thesis master's degree. In any department, a final examination may be waived if the student meets the minimum requirements of the department. In any event, a final examining committee is appointed for each candidate for the master's degree. The committee must certify to the Graduate School either that the student has passed the required examinations of the department in which the major graduate study has been taken or that the committee is satisfied with the accomplishment of the student as based on a committee conference. Ph.D. programs all require qualifying examinations early in the course of study. After the student has completed most of the formal study to the satisfaction of the advisory committee, the student becomes eligible to take the preliminary examination. The results of these written and oral examinations are reported to the Graduate School by the examining committee with an appropriate recommendation for the student's admission to candidacy, continued preparatory study, or discontinuation. All Ph.D. programs require a Ph.D. thesis.

Other regulations or requirements may be found in the Purdue and Indiana University Graduate School bulletins and in the section of this bulletin for the School of Science.

Graduate Nondegree Status

A student who has previously earned a bachelor's degree may enroll in graduate courses without submitting a formal application as a degree-seeking student. Application as a graduate nondegree student is, however, required and may be accomplished through the IUPUI Graduate Office, Union Building, UN 518; telephone (317) 274-1577. A maximum of 12 credit hours of courses completed as a graduate nondegree student may be used in completing the requirements of a degree upon acceptance as a degree-seeking student and upon departmental approval.

Financial Support

All departments in the School of Science offer some financial support available in the form of tuition-refund assistantships, associate faculty positions, fellowships, and stipends from local industry.

Industrial and Business Co-op Programs

Several departments in the School of Science have co-op programs associated with their degrees. In co-op programs, research is conducted at the university and at a local industrial laboratory or business. The project is usually the result of a collaborative arrangement between a faculty member and an industrial scientist or a business firm. These programs provide workplace experience and an opportunity to participate in research applied to special industry and business needs.

Geology Graduate Program

Consult the Indiana University Graduate School and the Department of Geology within the School of Science section of this bulletin for information about this IU program. A maximum of 9 credit hours of course work completed as a graduate nondegree student may be used in completing the requirements of a degree upon acceptance as a degree-seeking student and upon departmental approval.

Indiana University Graduate Programs

The Indiana University Graduate School is represented on the IUPUI campus by the IUPUI Graduate Office. There are two categories of admission to the IU Graduate School:

1. admission to pursue a degree
2. admission to take courses in a specific school, department, or program as a special student

Undergraduate Requirements (All Admission Categories)

The Indiana University Graduate School will consider applications from students holding bachelor's degrees from Indiana University or from other accredited four-year collegiate institutions whose requirements are similar to those of Indiana University. Students may be admitted with deficiencies as graduate nondegree students (GND) or as special students (see below). Students from unaccredited institutions may be admitted as special students for one semester; if their records are satisfactory and their department, program, or school recommends them, they will be given full standing. Ordinarily, a minimum grade point average of 3.0 in an undergraduate major is required for admission to the Indiana University Graduate School.

Indiana University Bachelor's Degree Candidates

Candidates for bachelor's degrees at Indiana University may apply for conditional admission to the Indiana University Graduate School and may enroll for graduate credit for that portion of their program not required for completion of the bachelor's degree, provided:

1. they are within one semester of meeting bachelor's degree requirements. If the bachelor's degree is not completed within that semester, graduate credit earned may not be counted toward an advanced degree.
2. the total course load does not exceed that ordinarily taken by a full-time graduate student.
3. the courses taken for graduate credit are authorized to carry such credit. (In certain instances, graduate credit is allowed for undergraduate courses.)

Special Students

Students who have applied but have not been admitted to a degree program but who intend to study primarily in one department may be admitted by that department with the approval of the dean of the Indiana University Graduate School as special students. They must apply to a department just as degree students do and should indicate their desired

status. After 12 credit hours in a single department, special students must either be accepted into a degree program or change to nondegree status.

Visiting/Transient Students

Visiting students in good standing in any accredited graduate school who wish to enroll for one semester or summer session and who plan to return thereafter to their former institution may be admitted as visiting/transient students if their enrollment can be accommodated. Visiting/transient students should register as graduate nondegree students. Information and IU Graduate School bulletins may be obtained from the IUPUI Graduate Office, Union Building, UN 518; (317) 274-1577. Material restricted to the programs offered on the IUPUI campus can be found in this bulletin. Nondegree applications are available from the Enrollment Center or the Graduate Office. Nondegree students are advised by the graduate nondegree counselor in the IUPUI Graduate Office.

Application to Indiana University Graduate Degree Programs

Prospective graduate students, including graduates of Indiana University, must make formal application to a department, which will forward its recommendation to the dean. It is recommended that applications be made before the following dates:

Semester of Matriculation Deadline

Fall	February 15
Spring	September 1
Summer	January 1

All applications must be accompanied by two complete transcripts of previous college and university course work and should be submitted directly to the department in which the student wishes to work. Indiana University graduates should ask the registrar to send unofficial copies of their transcripts to that department.

Admission (except for visiting and continuing graduate nondegree students) is made to a particular department for a specific degree, and no student shall be permitted to work toward a degree without first having been admitted. Students who want to change departments should fill out Transfer of Department forms, which may be obtained in the Graduate Office, Union Building, UN 518. Requests for change of degree status must be approved by the department and approved by the dean of the Indiana University Graduate School.

Following the notice of admission to the Indiana University Graduate School, an applicant normally has two calendar years in which to enroll. Supplementary transcripts of any additional academic course work undertaken during that period are required, and a department may request additional letters of recommendation. Should the updated material prove unsatisfactory, the admission may be cancelled. If the applicant fails to enroll within two years, a completely new application is required.

Graduate Record Examinations

Applicants may be required to take the Graduate Record Examination General Test, Subject Test, or both (see the department or school sections of this

bulletin). Information concerning these examinations may be obtained from the Graduate Record Examinations Educational Testing Service, P.O. Box 6000, Princeton, NJ 08541-6000. Applications are available in the IUPUI Graduate Office.

For additional information about the IU Graduate School programs, financial support, academic regulations, and specific courses, consult the specific departments and the IU Graduate School section in this bulletin and its separate bulletin.

Graduate Non-Degree Students

Students who already hold bachelor's degrees frequently want to take courses without being admitted to one of the university's degree programs. These are students who are not currently enrolled in a degree program but are working towards admission, are working on a stand-alone graduate certificate program, or taking classes for personal or professional enrichment with no plans to work toward a degree. Such students must apply to the Graduate Non-Degree (GND) program. As GND students, they can take both undergraduate and graduate courses. However, many graduate courses will require GND students to obtain preregistration permission from either the instructor or the department. GND students may not accumulate more than 18 credit hours in a single subject area. For further information on admission requirements, academic program advising, and preregistration counseling, contact the Graduate Non-Degree advisor in the Graduate Office, Union Building, UN 518.

Students who are initially admitted as nondegree students, but who later wish to obtain a graduate degree, must make formal application for admission to a departmental degree program. Once admitted, the department may recommend to the dean of the Indiana University Graduate School that credit earned as a nondegree student be applied to degree requirements. Students should be aware that certain departments and schools specifically prohibit course work taken under nondegree status from counting towards a degree after a student has been admitted to a degree program.

Housing

Residential Housing is managed by the Office of Campus Housing. Options for on-campus living include Ball Residence, a traditional residence hall; International House, a cross-cultural living environment with shared apartments furnished in the style of residence halls; and the Graduate Townhomes, offering furnished living units.

Admission to the university does not guarantee campus housing accommodations. Students must file a separate application for housing in order to reserve space and should apply as soon as they decide to attend IUPUI. Assignments are made based on the date of receipt of the application and the \$15 application fee. Applications for housing may be made even before admission to the university. Accommodations are available for students with disabilities.

The IUPUI Office of Campus Housing also functions as a resource for off-campus accommodations, providing students, faculty, and staff current rental information on commercial and private housing opportunities available near campus, as well as in the greater Indianapolis area.

In addition, short-term/conference housing is available during the months of June and July, offering a variety of room types at competitive prices.

For additional information, contact the IUPUI Office of Campus Housing at (317) 274-7200 or 1-800-631-3974 or check the Web site www.housing.iupui.edu.

Parking and Transportation

There are four types of parking available at IUPUI. Faculty and staff can purchase "A" and "B" stickers and use lots designated "A" and "B." Students park in "E" lots, while visitors use the garages, attended lots, and metered spaces. Students may elect to pay a higher fee and park in a garage if space is available. Students may purchase "E" parking permits during registration for classes and receive the permit in the mail. Parking fees are published each semester in the *Schedule of Classes*.

People who park in the wrong lot will be ticketed. If they continue to park illegally, their cars will be towed at their expense. Students who fail to pay parking fines will not be allowed to register for classes.

People with a physical disability should contact the Office of Parking and Transportation Services to request a special parking permit. The staff can authorize special permits for short-term disabilities, but people must get state certification before receiving a special long-term parking permit.

Special parking spaces for RVs and campers are available on campus. Contact Parking Services at least two days in advance to be sure that space is available.

IUPUI runs shuttle buses continuously between the parking lots to the center of campus from 7 a.m. to 9 p.m., as well as a shuttle from the Herron School of Art to the Michigan Street campus. Clarian Security runs a Medical Shuttle from 6:30 a.m. to midnight. Several Metro bus routes (#3—W. Michigan Street, #13—W. Tenth Street, and #37—Park Street) also serve the campus. Schedules for both campus and Metro lines are available in University Library and Cavanaugh Hall, and on the Web by visiting registrar.iupui.edu/maps.html.

For more information on parking and campus shuttles, visit www.parking.iupui.edu.

There is a special "brag" license plate with the IUPUI emblem issued in place of regular state plates. Application is free to students, and \$10 is payable to the Bureau of Motor Vehicles at the time of purchase. Others pay \$25 which goes into scholarships for IUPUI students. Contact the Alumni Office at (317) 274-8828 for more information. For an online application, click on "merchandise" on the Alumni Relations Web site (www.iupui.edu/~alumrels).

Center for Young Children

After many years of planning, the IUPUI Center for Young Children moved into its new building at 321 Limestone Street in the fall of 2000. The Center's focus is on preschool children from age 2 through kindergarten, with full-day and half-day programs. It is also available for school aged children through age 12 during the summer. The Center is licensed by the state of Indiana and is accredited by the National Association for the Education of Young Children (NAEYC). It is known throughout the state for its excellent care and developmentally appropriate curriculum in a warm and attentive environment. Classrooms are clustered into neighborhoods around indoor play parks to give the feeling of several smaller centers. It serves the children of faculty, staff, and students on a year-round basis, closing for the major holidays and Spring Break. There is a waiting list. For more information visit the Center or call (317) 274-3508. Additional information can be found at www.childcare.iupui.edu.

Counseling and Psychological Services (CAPS)

The professionally trained counselors of the IUPUI Counseling and Psychological Services provide services to students, faculty, and staff who may be experiencing emotional, psychological, and/or cognitive difficulties that have an impact upon academic or work performance. Counseling is free to students. Private and confidential appointments are available in individual, couples, or group formats. Evening appointments are available Monday through Thursday with appointment only. Assessments are also available for learning disabilities and attention deficit disorder by licensed psychologists on a fee-per-service basis. For information, call (317) 274-2548; e-mail caps@iupui.edu, or visit the Web site at life.iupui.edu/caps.

Career Exploration and Job Placement (IUPUI Career Center)

IUPUI Career Center

Faculty and advisors in your area of study can be helpful resources when considering career options. Another key resource, particularly for exploratory students, is the Career Center. The center's primary purpose is to aid students in developing, evaluating, and effectively implementing a sound career planning strategy. Tools provided to assist in this process are occupational information and employment trends, workshops on choosing a major and on career decision making, as well as career counseling.

In addition, the center provides a computerized career guidance program and various self-assessment inventories to aid students with career planning and selection. These instruments are available to all interested students, alumni, staff, and faculty.

JagJobs, the Career Center's job/internship posting Web site, provides the latest technology to IUPUI students and alumni for locating internships, non-degreed jobs through the Student Employment Program, and senior/alumni employment opportunities. On-campus interview schedules are posted via JagJobs. The Career Center sponsors several large job fairs throughout the fall and spring semesters, including the Indiana Multicultural Job Fair and the Indiana Collegiate Job Fair.

For additional information about Career Center programs and services, see the Web site: www.iupui.edu/~career, or visit the Career Center, Business/SPEA Building, BS 2010, (317) 274-2554.

Career Resource Library

This specialized library in the IUPUI Career Center is open to anyone who wants to explore hundreds of career options through print and online materials. Resources include a large assortment of books, pamphlets, periodicals, and audio-visual materials all containing career and occupational information for both traditional and nontraditional careers. While materials are not circulated, the library can be used whenever the center is open.

IUPUI Student Employment: JOBS Program

The Student JOBS Program offers students access to non-degreed job opportunities to help offset the expenses of education.

Job opportunities are listed in JagJobs (www.iupui.edu/~career), our online job-board, which is available to students 24 hours a day. Employers also frequently visit campus to do on-campus recruiting for their job opportunities.

In JagJobs, there are on-campus and off-campus job opportunities listed. These jobs range from administrative positions to retail sales representatives to package handlers to lab assistants.

Students can receive assistance with their job search by stopping by the Student Employment Office in the IUPUI Career Center. Student employment representatives are available to assist students in the Bus/SPEA Building, Room 2010, or by phone (317) 274-0857.

IUPUI Student Employment: Work-Study Program

This is a federally funded financial aid program administered through the Student Employment Office. To obtain Work-Study jobs, students need to have received a Work-Study award as part of their financial aid package. Eligible students can access on- and off-campus Work-Study job opportunities listed on JagJobs, a Web-based system available 24 hours a day. Recipients of Work-Study awards must obtain Authorization/Payroll paperwork from the Student Employment Office before applying for positions. Students can receive assistance with their Work-Study job search by contacting the Student Employment Office in the Business/SPEA Building, BS 2010, (317) 274-4577.

IUPUI Student Health Center

The IUPUI Student Health Center provides primary medical care services to all students enrolled at IUPUI. The medical staff includes an internal medicine physician with training in pulmonary (lung) disease and a primary care physician with extensive experience in student health care. Services are provided at a low cost fee-for-service basis. Services include acute care visits, travel immunizations, sexually transmitted disease testing and counseling, allergy injections, physical exams, vaccinations, pregnancy testing, treatment for asthma, birth control, gynecological exams, HIV testing, etc. The IUPUI Student Health Center is located on the first floor of Coleman Hall. For appointments call 274-5887.

Other Health Services

Health insurance is required of graduate students. For answers to insurance questions, call (317) 278-1159.

There are 100 medical clinics on campus, and Wishard Emergency Room is available during hours that clinics are closed.

For psychological assistance, see "Counseling and Psychological Services (CAPS)" elsewhere in this bulletin.

There is a Smoking Cessation Program, the IU Nicotine Dependence Program, that treats nicotine-addicted individuals, combining behavioral, pharmacologic, and chemical dependence therapies. For more information, call the School of Dentistry, (317) 274-3859.

A Wellness Program also exists. Call (317) 274-0610 for additional information.

Health Insurance Programs

All undergraduates taking 6 or more credit hours and graduate students enrolled in 3 or more credit hours are eligible to participate in a voluntary student health insurance program. Health insurance is mandatory for all international students in F or J visa status, who are automatically enrolled and billed for the insurance premium.

Health insurance is required and automatically provided for graduate students who are fellowship recipients with semester funding over \$2,233 and all student academic appointees (SAAs) at .375 FTE or higher. Students will be provided with insurance brochures by their academic departments.

For more information about the insurance policy and coverages, call (317) 278-1159 or 1-800-767-0700. International students with questions about the mandatory policy for international students should call the Office of International Affairs, (317) 274-7294. Graduate students should direct any insurance concerns to the Graduate Office, (317) 274-4023.

Adaptive Educational Services (AES)

IUPUI is committed to helping students with disabilities achieve their goals by augmenting their existing strengths and abilities. Adaptive Educational Services (AES) provides a range of services based on the documented needs of qualified students with disabilities that meet the requirements of the Americans With Disabilities Act (ADA) and the Rehabilitation Act of 1973. AES facilitates tests that require extended time, provides interpreters, maintains special equipment in the library, provides online software, coordinates financial support and service through Indiana Vocational Rehabilitation, assists in registration, provides note takers, works with faculty to make reasonable modifications of programs and courses for students with disabilities, upholds academic standards, and maintains legally appropriate confidentiality for students with disabilities. AES supports the Disability Awareness Council (DAC) and provides informational workshops around campus to increase the awareness of the ADA and the university's responsibilities toward students with disabilities. Visit the Web site (life.iupui.edu/aes/) or call (317) 274-3241 or TTY/TDD (317) 278-2050.

There are TTY/TDD phones available on campus as well as Relay Indiana:

Request for TDD information, (317) 274-9400

Campus TDD operator, (317) 274-4644

Affirmative Action Office, (317) 278-2200

Campus Police, (317) 274-1387

Riley Hospital Emergency Service, (317) 278-3323

American Sign Language and English Interpreting Program, (317) 274-1410

Associate Faculty Office, Cavanaugh Hall, CA 313, (317) 274-2072

Public TTYs are in place in several banks of public phones, including those in Cavanaugh Hall across from the bookstore.

Veterans Affairs

Individuals wishing to use veterans benefits should notify the veterans affairs (VA) representative in the Office of the Registrar, Cavanaugh Hall, CA 133, (317) 274-1521, after filing a DD214 form with the Office of Admissions. Visit the VA Web site (registrar.iupui.edu/va.html).

Office of International Affairs

Many international students come to IUPUI to study, and the campus offers numerous opportunities for resident students to involve themselves in clubs, housing, and programs with an international focus. The Office of International Affairs is responsible for many of these activities and serves as the office responsible for international students, faculty, and scholars coming to IUPUI.

The Office of International Affairs, located in the south wing of the Union Building, UN 207, provides the following services to IUPUI students:

- Admission processing for all international applicants and permanent resident applicants with fewer than two years of study in a U.S. high school (a special international application is required for undergraduate students) and refugees and recipients of political asylum who have completed their secondary and/or post-secondary studies outside the United States
- Advising for IUPUI students about opportunities to study abroad, including scholarship and financial aid information and provision of student ID cards for international travel
- Nonimmigrant visa documentation for foreign students; orientation activities for all incoming international students and interested permanent residents
- Advising for international students on nonimmigrant visa regulations, employment authorization, university procedures, housing, and adjustment to life in Indiana
- Cross-cultural living/learning experience at the International House

To obtain information about international admission to IUPUI or other services provided by the Office of International Affairs, visit or contact the office at the Union Building, UN 207; (317) 274-7000; fax: (317) 278-2213; e-mail: intlaff@iupui.edu; Web site: www.international.iupui.edu.

Student Services

Office of the Dean of Students

Dean of Students

The dean of students is charged with working with students, faculty, staff, and administrators to promote ethical behavior and civility. The dean of students is the chief judicial officer for issues related to the *Code of Student Rights, Responsibilities, and Conduct*. Every student should be familiar with the code and can obtain a copy from their department, school, or the Office of the Dean of Students. Brochures addressing specific and limited areas of the code can be obtained in the Office of the Dean of Students and the Office of Admissions. For more information, contact the Office of the Dean of Students in the Administration Building, AO 112; call (317) 274-4431; or check the Web site (life.iupui.edu/dos).

The Ombudsperson

The ombudsperson provides impartial, objective, and confidential assistance to students, faculty/staff, and parents with specific complaints, questions, or conflicts involving students. For more information, contact Ombudsperson in University College, UC 006D; call (317) 274-3931; or visit the Web site life.iupui.edu/stuombud.

Office of Student Life and Diversity Programs

IUPUI students, staff, and faculty are as diverse as the city around them, coming from many walks of life, a wide range of ages, and varied ethnic and religious cultures. Such diversity is a healthy sign that a university is preparing its students for the twenty-first century. The Office of Student Life and Diversity Programs provides a variety of cultural, leadership, social, and educational programs to enrich student life at IUPUI. Also mindful of IUPUI's main educational mission, the office is committed to student learning as its first priority, emphasizing two basic themes: (1) student learning occurs beyond academic classroom learning, (2) the best strategy for encouraging both in-class and out-of-class learning is cooperation with the academic units and the development of co-curricular activities alongside more traditional campus activities. For more information, contact the Office of Student Life and Diversity Programs at UC 002; (317) 274-3931; or visit the Web site (life.iupui.edu/sldp).

Co-Curricular Opportunities and Activities

Undergraduate Student Assembly (USA)

Undergraduate students are represented by the Undergraduate Student Assembly, which is composed of the Senate and the House of Organizations. The body gives students leadership experience and provides a communication network to channel the concerns and ideas of students to the most appropriate offices and individuals for action. Each school is represented by a senator, while both campus and school/program organizations may send a representative to the House of Organizations. Each spring, the USA conducts elections to select seven officers. Four—president, vice president, secretary, and comptroller—are elected by undergraduate students at large. The other three—speaker of the House, co-secretary, and co-comptroller—are elected by the House.

School Councils

Each undergraduate school has some form of student group, usually a student council, that represents the students in the school and determines how student activity funds are spent and plans student activities in the school.

Sagamore and Literary Publications

The *Sagamore* is the free, award-winning IUPUI weekly student newspaper, published each Monday during the school year. It features club events and campus activities, as well as advertising. The paper is available in Cavanaugh Hall, the University Library, the Union Building, and other main locations. For more information, contact the *Sagamore* at (317) 274-2954.

Genesis and *Fine Print* are two publications devoted to the creative work produced by IUPUI students. For more information, contact the Department of English at (317) 274-3824 or consult its Web site at www.iupui.edu/~english.

IUPUI Clubs and Organizations

IUPUI has over 120 student clubs and organizations representing a broad range of student interests and academic majors. Many of these groups are related to a career or field of study, while others are focused on diversity, recreation, service, or special interest. Being involved in a club or organization allows students opportunities to meet other students and faculty members, to put classroom skills into practice, to serve in leadership positions, and to prepare for life experiences in a global society. Members of IUPUI clubs gather socially, engage in activities related to their fields of study, and participate in service projects, either for the campus or for the outlying community. Students have the opportunity to present programming for other students, such as hosting speakers, showing films, producing newsletters and videos, or planning events just for fun, such as dances or outings. Becoming involved in a club or organization is a great way for students to connect to the campus. A complete listing of currently active clubs and organizations may be obtained from the Student Life and Diversity Programs office, UC 002, or online at life.iupui.edu/sldp/orgs.

Greek Life

IUPUI is home to social fraternities and sororities, each affiliated with a national organization. These respective chapters provide a unique experience in campus life that embraces many aspects of student development. At IUPUI, fraternities and sororities emphasize scholarship, leadership, philanthropic service, and social development.

In addition to those organizations chartered on campus, a number of IUPUI students belong to city-wide chapters of National Pan-Hellenic Council (NPHC) organizations. Area representatives for these groups can be contacted through Student Life and Diversity Programs.

Religious Activities and Groups

Numerous religious groups have clubs or activities on campus. The Interfaith Alliance coordinates and has contact with all student religious organizations and presents ecumenical programs. Students also have the opportunity to participate in informal religious study and discussion groups that meet on campus.

Intramural and Recreational Sports

Recreational sports are open to both women and men and include aerobics, aquatics, cross country, swimming, and golf. Intramural sports include badminton, basketball, flag football, racquetball, softball, tennis, and volleyball. The School of Physical Education facility provides space for both informal recreation and league play. Lockers are assigned in the Natatorium with sport passes and an additional minimal fee. The sports pass allows students to use the swimming pools (three Olympic-sized pools), the world-class track stadium, the handball and racquet courts, the outdoor basketball courts, the weight room, aerobics rooms, the Polaris room. Students also may check out equipment. Passes can be purchased by students, staff, and faculty at the Natatorium (NT) Service Desk, lower level, (317) 274-3518.

The department supports Max*Well, a comprehensive wellness program. Students may obtain general wellness information as well as fee-based services such as body fat testing, health risk appraisals, and diet analysis. For more information about Max*Well, call (317) 274-0610. Intramural and Recreational Sports is in the Physical Education Building, PE 043; (317) 274-2824.

Multicultural Clubs and Activities

IUPUI students celebrate diversity and heritage that highlight the multicultural fabric of our society. This is accomplished, largely, through the programming activities of many multicultural student clubs, including the Black Student Union, Chinese Culture Club, International Club, and student associations representing African, Arab, Asian Pacific-American, Iranian, Latino, Pakistani, and Turkish students. These groups address academic and social needs of students, develop positive racial identity, encourage participation and leadership, and promote civility. Through thematic program months such as Latin American Heritage Month, Native American History Month, Black History Month, and Women's History Month, the multicultural student groups have encouraged the IUPUI community to celebrate our differences and establish new traditions.

Graduate Student Organization

The Graduate Student Organization (GSO) provides the graduate and professional students of IUPUI with an official and representative student government. It gives these students a voice in matters pertaining to the affairs and planning of the university, thereby enhancing their involvement with the campus. GSO works to improve the quality of graduate and professional student life. Members of GSO are elected or appointed from each academic school with a graduate or professional degree program and from the continuing nondegree students registered in the Graduate School. GSO meets monthly and sponsors the Educational Enhancement Grant to support graduate and professional students in research, training, and participation in professional conferences.

Student Photo Identification Cards (IUPUI OneCard)

ID cards are provided year-round on the first floor of University College, UC 127, and in Union Building 115. For current hours, see the *Schedule of Classes*. There is no charge for the first card, but students pay to replace lost or stolen cards. ID cards are used as library cards, to access physical education facilities, and to receive tax exemption in cafeterias. ID cards may be needed for international travel discounts and general proof of student status, and they are also used at the Learning Center Cluster. The current ID card is a "OneCard" and allows students to put money on the card and then use it to purchase food and drink from Campus Vending, most food services on campus, and campus bookstores. For more information, call (317) 274-5177 or visit www.onecard.iupui.edu.

Campus Resources

IUPUI Libraries

There are five separate libraries on the IUPUI campus. The University Library is located in the center of the campus. The dental, art, law, and medical libraries contain specialized collections reflecting their respective curricula and are located at the School of Dentistry, Herron School of Art, School of Law, and School of Medicine. Although all libraries are open to every student, undergraduates tend to use the resources available at the University Library. The IU Catalog system (IUCAT) is available at all campus libraries. An interlibrary loan service connects the IUPUI libraries with the university libraries at Bloomington and West Lafayette, as well as other libraries throughout the country.

The University Library collection supports undergraduate courses and covers a wide range of academic disciplines, from liberal arts to science, engineering, and technology. This collection contains over 600,000 volumes and 4,500 subscriptions to current periodicals. The Library has more than 600 general and graduate study carrels, 30 group-study rooms, class and meeting rooms, including a 100-seat auditorium.

The University Library information system hosts more than 200 computer workstations permitting patrons to search for information through one of the most extensive and sophisticated online research systems in the country. The system provides access to resources such as library catalogs from around the world, bibliographic databases, full-text and numeric databases, cable television, and the Internet. Word processing and other electronic applications are also available on these machines, combined with file storage on the university main system for use by students. Access to many of these resources is provided from computer stations campuswide, plus a newly established wireless laptop service.

The hours for the campus libraries are subject to change, particularly during the summer sessions and when classes are not in session. Because lending policies and procedures vary slightly among the different libraries, students should consult with personnel at the main desk of each library before checking out books and other materials.

University Library (UL)
(317) 274-8278
www.ulib.iupui.edu

School of Dentistry Library (DS)
(317) 274-7204
www.iusd.iupui.edu/Depts/Lib/

Herron School of Art Library (MB)
(317) 920-2433
www.ulib.iupui.edu/herron/

School of Law—Ruth Lilly Library (IH)
(317) 274-4028
www.iulaw.indy.indiana.edu/library/library.htm

Medical (Ruth Lilly), Medical Research/Library (IB)
(317) 274-7182
www.medlib.iupui.edu/

Computers on Campus

University Information Technology Services (UTS)

University Information Technology Services (UTS) at Indiana University, with offices on the Bloomington and Indianapolis campuses, is responsible for the continued development of a modern information technology environment throughout the university in support of IU's vision of excellence in research, teaching, outreach, and lifelong learning.

The environment that UITS provides consists of tools and services that support the academic and administrative work of the university. Computing tools include central computing services and hundreds of Internet-connected workstations, all equipped with current software and accessible to members of the IUPUI community. Connecting these resources is a high-speed network that links computers of many types and sizes in a complex, interactive web.

The Support Center

More than a help desk, the Support Center is the central location for accessing the myriad of services offered by UITS. Support is available via the Web, telephone, e-mail, and on a walk-in basis. The Support Center's home page (support.iupui.edu) links to other resources:

- information about creating accounts, choosing good passwords, setting mail-forwarding, and more
- online request forms for many of the services administered by UITS, such as making media equipment reservations and adding privileges to a network account
- student guides, such as the UITS Computer Guide, which contains information for students who are thinking of buying a personal computer

- information about educational computing opportunities, such as the hands-on classes offered by the UITS Education Program
- documentation, such as the IU Knowledge Base (KB), an award-winning, searchable database with thousands of entries on a wide range of topics related to computing at Indiana University
- the Computing Question Form for asking your questions via the Web

Students who can't find answers in the Support Center Web pages should visit the Support Center on the second floor of the Education/Social Work Building, ES 2126, or call (317) 274-HELP (4357). When classes are in session, the Support Center is open Monday through Thursday, 8 a.m. to 10 p.m.; Friday, 8 a.m. to 5 p.m.; and Saturday, 9 a.m. to 5 p.m.

Student Technology Centers and Consulting

Student Technology Centers (STCs) are located in several buildings on campus. These facilities, which support both Intel- and Macintosh-based platforms, are open and staffed with consultants many hours each week, including a 24-hour STC. A wide variety of software and media equipment is available in the STCs, giving students convenient access to popular computer applications, the Internet, and audiovisual technologies. Many STCs are funded and managed cooperatively with individual schools. Several schools and departments have private learning centers for their students' use. For more information about the Student Technology Centers and consulting, visit www.iupui.edu/~stc/.

UTS IT Training & Education

Each semester, the UITS IT Training & Education program offers hands-on classes on topics such as electronic mail, word processing, databases, spreadsheets, Web development, and more. STEPS noncredit classes are free for students. These classes provide beginning and in-depth instruction on subjects of special interest and importance to students in their academic work. Students do not need to register, but they must show their student ID to the STEPS class instructor. Visit the online *Schedule of Classes* at itraining.iu.edu. Paper copies of the schedule are available at the UITS Support Center (ES 2126) and the Student Technology Centers. Students may also call the IT Training & Education program at (317) 274-7383 or e-mail itraining@iupui.edu.

Student Network ID and ADS Domain Account

The Network ID gives students access to the computer systems maintained by UITS at IUPUI. With a Network ID, students can create various computer accounts, change the passwords for their accounts, dial into the IUPUI network from off campus, choose their preferred e-mail address (the address that corresponds to the account where they want to receive their messages), and more. With an ADS Domain account, students can log into Student Technology Center computers, as well as use Oncourse, IU's online course environment (oncourse.iu.edu).

Students who don't have a Network ID should see the IUPUI Student Network ID Services Web page at <https://iupui-accts.iupui.edu/students/student.html>. Select the option "Activating an IUPUI Student Network ID." Note that students must know their student ID number and registration PIN to get through the account-generation process. To receive the student ID number and PIN, students should contact the Office of the Registrar in Cavanaugh Hall. For other information about the Network ID, students should call the Support Center at (317) 274-HELP (4357).

IUware and MSELA CDs

The IUware CD provides a convenient way for students to get essential software on their personal computers. This CD includes communications programs, Web browsers, virus protection, and other useful applications, such as a new PPP Wizard for Windows, which simplifies the process of setting up a modem to dial into the UITS modem pools. The IUware CD is available at campus bookstores. For more information or a list of the contents for Windows and Macintosh, visit www.indiana.edu/~dsl/software/iuwarecd/. See IUware online at iuware.iu.edu.

Due to their large size, Microsoft Office, Windows operating systems, FrontPage, and Visual Studio are not included on the IUware CD. However, they are available through the IU-Microsoft Enterprise License Agreement (MSELA) and may be purchased separately.

The IUware and MSELA CDs are available at the IUPUI Bookstores (the Cavanaugh Hall and Union Building locations), the University Library, the Ruth Lilly Medical Library, and the MERP Learning Resource Center (Medical Science B10). Most of the CDs are \$5 each. Please note that purchase requires proof of affiliation with the university, as well as concordance to abide by the terms and conditions of the license agreement. For more about the IUware CD and the IU-Microsoft Enterprise License Agreement (MSELA), visit www.indiana.edu/~msela.

Bookstores

Four bookstores handle textbooks for the IUPUI academic community; a schedule of operating hours is published in the *Schedule of Classes*.

Cavanaugh Hall Bookstore
Basement, CA 008B
(317) 278-BOOK (2665)
(Textbooks needed by undergraduate and graduate students)

Herron School of Art Bookstore
Main Building, HM 009
(317) 920-2442
(Art textbooks and art supplies)

Union Medical/Law Bookstore
Union Building, First Floor
(317) 274-7167
(Textbooks for medical, law, nursing, and allied health sciences students, and for classes held at the Union Building)

IUPUI Columbus Bookstore
CO 156A, 4601 Central Avenue
(812) 348-7225
(Textbooks for all courses at the Columbus campus.)

Textbook information can be obtained and ordered from the bookstores' Web site: www.bookstore.iupui.edu.

The bookstore at Cavanaugh Hall sells Apple and Compaq computers and academically priced computer software. For more information, call (317) 278-2099 or visit the bookstore.

Emblematic apparel and gifts for the IUPUI Jaguars are sold at the Cavanaugh Hall Bookstore.

Office of the Bursar

The Office of the Bursar collects payments for student fees; orders refund checks; and applies financial aid credits. The Office of the Bursar also accepts authorizations for sponsor billings from qualifying governmental and corporate agencies. For more information visit bursar.iupui.edu.

Art Galleries and Museums

The campus itself contains the Herron Gallery, the Cultural Arts Gallery located in University College, and the National Art Museum of Sports.

The Herron Gallery

The Herron Gallery is a nonprofit visual art gallery that provides the community, local high school students, and IUPUI students, faculty, and staff with daily first-hand exposure to contemporary works of art created by regional, national, and international artists. The 3,200-square-foot gallery is committed to a program of eight to ten exhibits each year that explore all areas of visual artistic expression. The gallery also holds annual student, senior, and faculty exhibits. Each year's exhibit schedule is coordinated with the school's lecture series to provide a broader understanding of the works. In addition, workshops are conducted by visiting/exhibiting artists to give students the opportunity to work directly with recognized professionals. Call for current gallery hours and an exhibition schedule at (317) 920-2420.

The IUPUI Cultural Arts Gallery

Created in 1997, the IUPUI Cultural Arts Gallery showcases art produced by, or of interest to, students of IUPUI while contributing significantly to the cultural vitality of the university. Through education, exhibits, and events, the gallery supports a community of learning that encourages appreciation and respect for all forms of the arts and the total range of cultures that produce them.

The gallery operates within the Office of Student Life and Diversity Programs and is located in the Student Activities Center in the University College Building on the IUPUI main campus. Offering six to seven

exhibitions a year, the gallery showcases contemporary artists, as well as student artists working in a variety of formats. Annual events include the Student Spotlight Show and the Annual Campus Interrelations Student Art Competition. In addition to exhibits, the gallery also holds lectures and other performing arts events to create additional opportunities to expand the educational experience for all IUPUI students.

The National Art Museum of Sports

The National Art Museum of Sports contains nearly 200 paintings, sculptures, and works on paper from the nation's largest collection of fine art devoted to sports and is located at the University Place Conference Center and Hotel, (317) 274-2339.

Other Community Resources

In addition, Indianapolis has numerous museums, historical homes, and sites including the State Museum, the Eiteljorg Museum of American Indians and Western Art, the Indianapolis Museum of Art, Conner Prairie (a living history museum), the Indiana Historical Society, and the Indianapolis Children's Museum. A number of these institutions border the IUPUI campus as part of the White River State Park.

The Center for Service and Learning

The mission of the Center for Service and Learning (CSL) is to make service an integral and distinctive aspect of the educational culture of IUPUI. As a metropolitan campus, IUPUI is well-positioned to involve students, faculty, and staff in service to the local community. Fostering an ethic of service and civic participation in students who will be today's and tomorrow's leaders and volunteers makes the center and its programs one of IUPUI's important bridges into the community.

The CSL includes three offices: the Office of Service Learning, the Office of Community Service, and the Office of Neighborhood Resources.

Office of Service Learning

The Office of Service Learning (OSL) promotes both curricular and co-curricular service opportunities. Service learning involves students in community service as part of a specific course; students reflect on their experiences in order to gain further understanding of course content, a greater appreciation of the discipline, and an enhanced sense of civic responsibility. For listings of classes with a service learning component, check the *Schedule of Classes* under "Service Learning" or view the center's Web site at csl.iupui.edu.

The OSL assists faculty with the design and implementation of service learning components, as well as the formal documentation of professional service, to include service learning components. In

addition, the OSL coordinates the Community Service Scholarship Program to recognize incoming and continuing students for their outstanding involvement in community/campus service and academic achievement. Freshman Service Scholars and Community Service Scholars enroll in a service learning class, participate in campus-wide community service activities, and become leaders who engage other students in community service. For additional information, call (317) 278-2662.

Office of Community Service

The Office of Community Service (OCS) encourages students, faculty, and staff to volunteer in the local community. This office organizes campus-wide service days, including the United Way Day of Caring in September, family sponsorship during the holiday season, the Dr. Martin Luther King Jr. Day of Service project in January, and Into the Parks each spring. The OCS also coordinates the Volunteer Fair where community agencies come to campus to recruit volunteers, maintains an updated list of volunteer opportunities with community agencies, and hosts a spring recognition event for all campus volunteers including the Jaguar athletes. In addition, the staff works with student groups interested in one-time service projects and students seeking mini-grants to support specific service projects.

Office of Neighborhood Resources

The Office of Neighborhood Resources (ONR) plays a vital role in building campus-community partnerships. The Center through ONR links community service with student employment by coordinating two community tutoring programs, the "America Reads/Work-Study Program" and the "Indiana Reading Corps/Work-Study Program." Both programs support IUPUI students who tutor K-6 students in reading at tutoring sites near campus. ONR also collaborates with the near Westside communities (WESCO) to support ongoing campus connections to strengthen education, neighborhood associations, and economic development through the Community Outreach Partnership Center (COPC). Lastly, ONR acts as a clearinghouse by inventorying campus involvement in communities and providing community access to campus resources.

The Center for Service and Learning is located in the University College Building. For more information, call (317) 278-2662.

Indiana Campus Compact (ICC)

The Indiana Campus Compact (ICC) is a consortium of 28 colleges and universities, both public and private, throughout the state, working to cultivate in students a lifelong commitment to community service and to strengthen the positive role institutions of higher education can take in their communities and in the state. Starting as a loose confederation of six institutions, ICC is one of the strongest state compacts in the nation and works closely with the national Campus Compact, a consortium of more than 600

colleges and universities. ICC provides mini-grants to students to design and implement service projects, coordinates a state-wide "Indiana Reading Corps/Work-Study Program," and seeks to embed service learning into teacher education programs. Students interested in service leadership opportunities can become involved with a variety of committees and programs. ICC is located on the IUPUI campus, at University Conference Center, Suite 200, (317) 274-6500.

IUPUI Alumni Association(s) and Student Organization for Alumni Relations (SOAR)

Graduates from the Indianapolis campus become alumni of Indiana or Purdue University and are invited to become dues-paying members of the respective Alumni Associations of those institutions. Members receive a variety of benefits, which range from the alumni magazine to travel opportunities. In addition, members can participate in a variety of social or service programs. For more information on these programs and the associations, contact the Office of Alumni Relations at (317) 274-8828 or visit www.iupui.edu/~alumrels/.

The Student Organization for Alumni Relations (SOAR) is open to all students and is coordinated through the Office of Alumni Relations. Members of this organization serve as the official student ambassadors for the campus and they stage activities such as the Career Exploration program, and the Big Growl Spirit Week and banner contest.

Special Campus Events: IUPUI's Traditions

Intercollegiate Athletics—Division I

IUPUI, in the fall of 1998, moved into Division I of the National Collegiate Athletic Association. The Jaguars men's and women's programs joined the Mid-Continent Conference. Our Jaguar mascot retains the school colors of red and gold with the complementary colors of black and white. Prior to moving to Division I, IUPUI was a member of the National Collegiate Athletic Association's (NCAA) Division II. Even before that, IUPUI was a member of the National Association of Intercollegiate Athletics (NAIA) and won 32 state and regional championships, reaching the Sweet Sixteen in men's basketball (1989-90) and the Final Four in women's basketball (1990-91), and finished second nationally in women's volleyball (1991-92). Beginning in 1983, the women's softball team made nine consecutive appearances in the NAIA National Tournament, finishing as high as third on three occasions.

IUPUI's student athletes are proud of two well-established traditions: their above average academic records and their record of service. Members of the basketball teams served as mentors and tutors for elementary schoolchildren in two Indianapolis elementary schools, while members of the women's tennis team conducted clinics for inner city youth, introducing them to the game of tennis. In addition, women's basketball and softball players serve as mentors at the Indianapolis Hawthorne Center.

Team IUPUI

Every fall and spring semester in the first week of classes, students come to campus to find information booths strategically located on campus and in key buildings. Volunteers from across the campus make up Team IUPUI. They're onhand to tell new students how to get to class buildings and answer questions. Besides dispensing information, the group offers a hearty welcome to new and old members of the IUPUI community.

Student Activities Fair, Volunteer Fair, and Ice Cream Social

The annual Student Activities Fair is held at the beginning of each fall semester in the Student Activities Center court yard. Approximately 70 student organizations use this fair to distribute information, advertise programs, and meet students interested in becoming involved in campus life. A second part of the fair is the annual Ice Cream Social. Over 90 distinguished dippers serve ice cream to the IUPUI campus community for a mere 10 cents a scoop. This event has become a long-lasting and favorite tradition on campus. In conjunction, the Center for Service and Learning hosts a Volunteer Fair for students, faculty, and staff to learn more about volunteer activities in the local community. A variety of agency representatives provide program information and a list of ways that volunteers can become involved.

Career Fairs

IUPUI was an early leader in the development of job fairs as a way for students to meet with employers who rarely recruited on this campus. The first efforts date back to the mid 1970s and focused on graduating seniors in the School of Education. The Career Center now sponsors several job fairs during the academic year, including Career Focus and the Indiana Multicultural Job Fair. Participation in job and career fairs is an excellent way to enhance career awareness and the job search process.

These events are unique in that they bring together a large number of recruiters representing a variety of firms to meet with students and alumni in order to fill current or anticipated employment opportunities. Information about the various fairs is available in the Career Center's Career Resource Library as well as on the Web site (www.iupui.edu/~career). For more information about each fair, check with the Career Center, Business/SPEA Building, BS 2010, (317) 274-2554.

Explore IUPUI and Campus Day

Students, parents, family members, and friends are invited to visit IUPUI twice a year, in the fall and spring. These events feature booths hosted by various schools, centers, programs, and facilities at IUPUI available to students who enroll. Special mini-information sessions on various programs, on financial aid, and on how to select a major are also offered. One-on-one advising, tours of IUPUI's nationally renowned University Library, and tours of the facilities are available. More information about Explore IUPUI and Campus Day, and other special events, such as open houses geared specifically to graduate programs, may be found at enroll.iupui.edu.

Chancellor's Honors Convocation

Since 1989 the Chancellor's Honors Convocation has been held each April to recognize excellence in teaching and scholarship by IUPUI students and faculty. One sophomore, junior, or senior student, chosen from each school because he or she has the highest GPA, is the Chancellor's Scholar. Students receive notification from their academic units and may invite guests to attend this special ceremony. All faculty members are invited to participate in the ceremony and are asked to wear full academic regalia.

Getting News and Information

To improve communications—an issue for any large and complex organization but especially critical for a commuter campus—the chancellor, many deans, and the president of the Undergraduate Student Assembly annually present a status report for their constituents. They describe what happened in the previous year along with goals for the upcoming year. The campus also has dozens of print publications from schools, offices, centers, and programs, as well as the weekly student paper, the *Sagamore*, which includes an extensive listing of student activities. Other timely information sources are *JagNews*, a daily news release distributed by e-mail, and periodic town meetings to discuss campus issues of importance to students, faculty, and staff. Information about the university is also available on the Web at www.iupui.edu.

United Way Day of Caring

In the fall, IUPUI joins a community-wide effort to provide United Way agencies with teams of students, faculty, and staff to complete one-day service projects. Service projects vary from year to year, depending upon the needs of the agencies. Typical projects include painting and general cleanup, mailings and special events, and hosting youth groups. In 2000, more than 200 people from IUPUI participated, and each year, more and more students turn out for this fun and satisfying day of community service. Jaguar athletic teams, student organizations, departments, and individuals can sign up by calling the Center for Service and Learning at (317) 278-2662 by September 1.

Graduation

IUPUI's schools assemble at the RCA Dome for graduation ceremonies. Present on the stage are many of Indiana and Purdue Universities' trustees, the presidents of both universities, and the chancellor of IUPUI. Honorary degrees are awarded to distinguished individuals during the ceremony and degrees are conferred ranging from associate to professional degrees. The IU and PU Alumni groups induct the graduates and provide them with a free first-year membership in the alumni groups. In addition, the schools hold separate ceremonies before and after the official ceremony.

IUPUI Spring Celebration Dance

Since 1987, IUPUI has held an annual spring dance sponsored by the Student Activities Programming Board. This dance, often held in the famous Indiana Ballroom, brings together students, staff, faculty, and alumni for an evening of fun and dancing.

Martin Luther King Jr. Day

IUPUI faculty, students, and staff have shared a tradition with the Indianapolis community since 1970, honoring the memory of slain civil rights leader Martin Luther King Jr. with a day of activities. The day, an official campus holiday, includes a number of events throughout the day, capped by the annual Martin Luther King dinner, the longest-running celebration honoring King in Indianapolis. The dinner attracts sell-out crowds to commemorate King's goals and dreams and to hear nationally renowned speakers. Past speakers include the famed American poet Maya Angelou; Benjamin Hooks, former director of the NAACP; former Congresswoman Shirley Chisholm; Hollywood actor and director Bill Duke; nationally syndicated columnist William Raspberry; and the scholar Henry Louis Gates. The Black Student Union presents awards to outstanding faculty and students at the dinner.

IUPUI joins a national effort to honor Dr. Martin Luther King Jr. by making this national holiday a "Day-On" rather than a day off. Since classes are not in session, students, faculty, and staff participate in a half-day service project in the local community. A kick-off breakfast is followed by team service projects that may include painting and general clean-up, assisting with a youth basketball clinic, or preparing a low-income home for rehab construction. Students and student groups may also apply for mini-grants to fund special service projects to honor Dr. Martin Luther King Jr.

Bookmarks

Since 1991, IUPUI's Bookmarks program has brought together students, faculty, staff, and even community readers to discuss a series of books including nonfiction, fiction, poetry, and plays. Titles are chosen each year through ballots available campuswide and a community that ensures that the books are available in paperback. From September through April, the five to six Bookmarks titles are the focus of a variety of talks, films (if the books have been made into movies), and panel discussions. All the programs are free to the public. Recently, programs have been held

at IUPUI's Service Center at Glendale Mall to make the discussions more accessible to the community.

Student Activities Honors Reception

The Undergraduate Student Assembly, in cooperation with the Student Life and Diversity Programs, sponsors the Student Activities Honors Reception each year in April. This event, originating in 1973, recognizes students, faculty, administrators, and staff members who have had an outstanding year as leaders, or who have given of themselves on behalf of the students. Many of the awards given commemorate previous IUPUI administrators such as William L. Garrett, a former assistant dean for student services; Lola L. Lohse, a former dean of the School of Physical Education; and Howard G. Schaller, former executive dean and dean of the faculties, who were themselves committed to students and student activities.

International Holiday Celebration and Related Events

For over a decade, students, faculty, staff, community members, and family members have attended the "Holiday Celebration," sponsored by student foreign language clubs and the Department of Foreign Languages and Cultures. At the Holiday Celebration students and their families enjoy foods from over thirty cultures, sing carols and traditional songs in at least ten languages, and break a piñata. Early in the spring, a combined Mardi Gras/Fasching/Carnaval party brings together European, Creole, and South American traditions in an evening of costumes, music, food, and fun. Throughout the year, students participate in events such as international movie nights, lecture series, field trips to art museums, festivals, concerts, restaurants, and dances. The "International Dinner" series hosted by the Department of Tourism, Conventions, and Event Management, the weekly "Culture Hour" hosted by the IUPUI International House and International Club, "Foreign Language Awareness Week" activities, the Model United Nations and Model European Union conferences, and "Great Decisions" discussion groups are some of the other internationally focused events. Students may also choose to participate in international activities through community organizations such as the Max Kade German-American Center and Turners Atheneum, El Centro Hispano and Le Tertulia, the Alliance Francaise, and the International Center of Indianapolis, whose activities are frequently announced in classes and posted on bulletin boards.

The Moving Company at IUPUI

The Moving Company, IUPUI's dance company, has been performing for 18 years. Currently, the company gives an informal concert on campus in the fall and a formal performance in the spring at the Madame C. J. Walker Theater. In addition, students perform at a regional American Dance Festival once a year and give as many other performances as time and funding permit. Any enrolled graduate, professional, or undergraduate IUPUI student with experience in dance can audition in the first week of each semester.

Code of Student Rights, Responsibilities, and Conduct

Indiana University has adopted a code that applies, with only minor differences, to students on all Indiana University campuses. The code, which is available in the Office of the Dean of Students and in all school offices, spells out what constitutes unacceptable behavior and the procedures to be followed when there are alleged cases of misconduct. The dean of students also has some very brief pamphlets on key areas of the code. What follows is not the code but rather abbreviated and paraphrased statements on key elements of the code: academic and personal misconduct as well as a section on what students should do if they believe that other students, faculty, or staff have violated their rights. The code also explains the procedures employed and how students may appeal decisions. For more information, consult the *Code of Student Rights, Responsibilities, and Conduct* as well as brochures located in the Office of the Dean of Students. For an online copy of the code, visit hoosiers.iupui.edu/studcode/stucode.htm.

A. Academic Misconduct

The university may discipline a student for academic misconduct, which is defined as any activity that tends to compromise the academic integrity of the institution and undermine the educational process. Academic misconduct includes, but is not limited to, the following:

1. Cheating
 - a. A student must not use external assistance on any "in-class" or "take-home" examination, unless the instructor specifically has authorized such assistance. This prohibition includes, but is not limited to, the use of tutors, books, notes, and calculators.
 - b. A student must not use another person as a substitute in the taking of an examination or quiz.
 - c. A student must not steal examinations or other course materials.
 - d. A student must not allow others to conduct research or to prepare any work for him or her without advance authorization from the instructor to whom the work is being submitted. Under this prohibition, a student must not make any unauthorized use of materials obtained from commercial term paper companies or from files of papers prepared by other persons.
 - e. A student must not collaborate with other persons on a particular project and submit a copy of a written report which is represented explicitly or implicitly as the student's own individual work.
 - f. A student must not use any unauthorized assistance in a laboratory, at a computer terminal, or on fieldwork.

- g. A student must not submit substantial portions of the same academic work for credit or honors more than once without permission of the instructor to whom the work is being submitted.
 - h. A student must not alter a grade or score in any way.
2. Fabrication
A student must not falsify or invent any information or data in an academic exercise including, but not limited to, records or reports, laboratory results, and citations to the sources of information.
 3. Plagiarism
A student must not adopt or reproduce ideas, words, or statements of another person without an appropriate acknowledgment. A student must give due credit to the originality of others and acknowledge an indebtedness whenever he or she does any of the following:
 - a. Quotes another person's actual words, either oral or written;
 - b. Paraphrases another person's words, either oral or written;
 - c. Uses another person's idea, opinion, or theory; or
 - d. Borrows facts, statistics, or other material, unless the information is common knowledge.
 4. Interference
 - a. A student must not steal, change, destroy, or impede another student's work. Impeding another student's work includes, but is not limited to, the theft, defacement, or mutilation of resources so as to deprive others of the information they contain.
 - b. A student must not give or offer a bribe, promise favors, or make threats with the intention of affecting a grade or the evaluation of academic performance.
 5. Violation of Course Rules
A student must not violate course rules as contained in a course syllabus or other information provided to the student.
 6. Facilitating Academic Dishonesty
A student must not intentionally or knowingly help or attempt to help another student to commit an act of academic misconduct.

B. Personal Misconduct

The university may discipline a student for acts of personal misconduct on or off university property. Acts of personal misconduct that are not committed on university property but arise from university activities that are being conducted off the university campus, or if the misconduct undermines the security of the university community or the integrity of the education process are also subject to disciplinary action. Examples of this kind of personal misconduct are:

1. Altering academic transcripts
2. Arson
3. Battery
4. Drug trafficking
5. Forgery
6. Fraud
7. Harassment of a student
8. Hazing
9. Rape
10. Sexual Assault
11. Trafficking in term papers
12. Unauthorized use of a computer off the campus to obtain access to information on campus
13. Participation in group violence

C. Complaints Against Faculty, Staff, and Students

When a student believes that any of his or her rights, as defined in Part I of the *Code of Student Rights, Responsibilities, and Conduct*, have been violated by another student or by a member of the university faculty, administration, staff, or a student organization, the student should ordinarily attempt to resolve the matter by making an informal complaint to the person or organization involved.

If the problem is not resolved to the complainant's satisfaction by contacting the person(s) involved, personnel in the Dean of Students Office or other appropriate persons can be consulted about options for resolution of the problem.

D. Disruptive Conduct

IUPUI strives to maintain a spirit of civility in a community in which diversity is welcomed. Every student, staff, and faculty member plays a significant role in promoting an environment that is conducive to academic excellence by fostering a climate of civility and mutual respect. In all circumstances it is expected that everyone will act with respect for one another. Difference of opinion and dissent are ordinarily thought of as disagreement or debate. They are not "disruptive conduct" as long as they do not impinge upon the rights of others or interfere with the teaching/learning process in an academic setting. As a community which values the uniqueness of people, behavior which is thought of as "different" or "unusual" is not "disruptive behavior" unless it infringes upon the rights of others or seriously interferes with the teaching/learning process in an academic setting.

The IUPUI instructional program is based on the premise that students enrolled at IUPUI are entitled to receive instruction free from interference by other students. When students are admitted to IUPUI, they accept the responsibility to conform to all IUPUI rules and regulations. Students are expected to comply by conducting themselves in an orderly and cooperative manner.

Further information can be obtained in the *Code of Student Rights, Responsibilities, and Conduct*.

Safety

IUPUI employs 34 full-time sworn police officers. The full-time and student police officers are certified as law enforcement officers by the Indiana Law Enforcement Training Board and meet the same standards as other law enforcement officers in Indiana. In compliance with the Federal Campus Security Act, IUPUI produces a pamphlet entitled "Safety at IUPUI." It contains information, policies, and statistics regarding safety, security, crime, law enforcement, sexual assault, and drug and alcohol programs at IUPUI. The pamphlet is available on the Web (police.iupui.edu/safety.html). Hard copies are available from the IUPUI Police, 430 N. University Blvd., Indianapolis, IN 46202; (317) 274-2058.

Contact the police in emergencies at (317) 274-7911; for nonemergencies, call (317) 274-7971.

Escort Service

Students may obtain an IUPUI Campus Police escort to their car or another building on campus by calling (317) 274-SAFE (7233) 24 hours a day. If students run out of gas or discover they are out of gas, have a dead battery or a flat tire, they may call for assistance at the same number.

Safety Hazards

For all health and safety hazards, including chemical, biological, physical, and environmental hazards, contact the Department of Environmental Health and Safety, Union Building, UN 043, (317) 274-2005.

For public safety hazards such as traffic, security, or criminal activity, call the IUPUI Police, (317) 274-7911.

For further information, consult the *Emergency Procedures Handbook*, which should be available at all reference desks and is available from the Department of Environmental Health and Safety. Topics include medical emergencies, chemical spills, hazardous gas leaks, weather emergencies, earthquakes, bomb threats, fire, and evacuation of persons with disabilities.

Emergency phones are available in parking garages and outside on campus; the latter are yellow boxes with blue lights. Some emergency phones also are found in the hallways of some buildings. All emergency phones are identified by the word *EMERGENCY* and connect directly to the IUPUI Public Safety Dispatch Center, (317) 274-7911.

Drug-Free Environment

IUPUI supports a drug-free university, which means that persons on campus are expected to be free of the influence of controlled substances or alcohol. Persons on campus must not use, manufacture, distribute, dispense, or possess such substances on university property or in the course of university activities.

IUPUI Police Cadet Program

The IUPUI Police Department has a comprehensive and unique law enforcement training program that has produced highly qualified and educated law enforcement professionals. The program allows cadets to attend school full time and work in paid positions in a law enforcement agency. Students graduate with their college degree, their police officer certification from the Indiana Law Enforcement Training Board, and field experience. For information about qualifications and specific elements of the program, either call (317) 274-8031 or visit the Web site (www.police.iupui.edu).



INDIANA UNIVERSITY SCHOOL OF ALLIED HEALTH SCIENCES



Coleman Hall (CF) 120
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Contents

43 Indiana University	85 Master of Science in Therapeutic Outcomes Research at IUPUI
43 Indiana University—Purdue University Indianapolis	
43 Indiana University Kokomo	86 Administrative Officers
43 Indiana University—Purdue University Fort Wayne	86 Faculty
44 Indiana University Northwest	
44 Indiana University South Bend	
44 Indiana University Bloomington	
45 Indiana University Southeast	
45 Indiana University East	
45 School of Allied Health Sciences	
45 Dean's Remarks	
45 Purpose	
46 Philosophy	
46 Vision	
46 Mission	
46 History of Current Degree Programs	
46 Accreditation	
46 Preadmission Status	
46 Change of Educational Objective for Preprofessional Students	
47 Admission Policies	
48 Admission Procedures	
48 Transfer Credit	
48 Undergraduate Degree Requirements	
48 General Undergraduate Requirements	
49 General-Education Requirements	
49 Program Prerequisites	
49 Professional Program Requirements	
49 Academic Regulations	
50 Academic Policies	
50 Honors	
51 IUPUI Honors Degree	
51 Student Rights and Responsibilities	
52 Credentials/Licensure	
52 Allied Health Alumni Association	
52 Academic Programs	
52 Clinical Laboratory Science/Medical Technology	
54 Cytotechnology	
56 Emergency Medical Services	
58 Health Information Administration/Health Information Technology	
61 Health Sciences Education	
63 Histotechnology	
65 Medical Imaging Technology	
67 Nuclear Medicine Technology	
69 Nutrition and Dietetics	
70 Occupational Therapy	
73 Paramedic Science	
73 Physical Therapy	
76 Radiation Therapy	
79 Radiography	
82 Respiratory Therapy	
84 General Allied Health Courses Available at IUPUI	
85 Graduate Programs—University Graduate School	

Indiana University

Founded in 1820, Indiana University is one of the 15 largest universities in the nation. With a faculty of nearly 4,000, the university is internationally known for the excellence and diversity of its programs, which meet the needs of more than 90,000 students. The university attracts students from all 50 states and around the world.

Indiana University consists of eight campuses: Indiana University–Purdue University Indianapolis, Indiana University Kokomo, Indiana University–Purdue University Fort Wayne, Indiana University Northwest (Gary), Indiana University South Bend, Indiana University Bloomington, University Southeast (New Albany), and Indiana University East (Richmond). IU also offers courses through facilities at Columbus, Elkhart, and many other sites. More than 80 percent of Indiana's population lives within a 50-mile radius of an IU campus.

The regional campuses offer students and other individuals the educational and informational resources of a large university, with the additional advantages of being able to pursue academic studies in their home communities or nearby, to attend college classes while working full time, to upgrade professional and technical skills, and to pursue intellectual and cultural interests.

The School of Allied Health Sciences offers educational programs on the following five of the university's eight campuses:

Indiana University–Purdue University Indianapolis
Indiana University Kokomo
Indiana University–Purdue University Fort Wayne
Indiana University Northwest (Gary)
Indiana University South Bend
Indiana University Southeast (New Albany)

Indiana University–Purdue University Indianapolis

Indiana University–Purdue University Indianapolis is an innovative urban campus offering 182 degree programs in more than 200 study fields to more than 27,000 students. Indiana University and Purdue University programs and facilities merged at Indianapolis in 1969. The campus continues to experience growth in both the range of its academic offerings and its physical facilities. IUPUI also offers courses at the Columbus Center at Columbus, Indiana.

IUPUI is the home of the IU School of Medicine, the second largest medical school in the United States. There are more than 800,000 patient visits annually to the Medical Center's five teaching hospitals and more than 150 clinics.

The IUPUI library system consists of seven libraries serving the special interests of individual schools. In addition, the entire Indiana University system library is readily available through the interlibrary loan system.

As an urban university, IUPUI has taken advantage of flexible scheduling of classes. Classes are offered days, evenings, and weekends both on the campus and in shopping centers around the city. More than 1,500 faculty plus hundreds of professionals from the metropolitan area bring a rich blend of scholarly demands and practicality to the courses they teach.

Indianapolis, in addition to being the capital city and cultural center of the state of Indiana, is one of the major economic, cultural, and sports centers of the Midwest. With a population of more than 800,000, the city offers numerous museums, cultural and entertainment events, and national and international athletic competitions.

Information and Applications

For an application to Indiana University–Purdue University Indianapolis and other information about the campus, contact:

Office of Admissions
Indiana University–Purdue University Indianapolis
Cavanaugh Hall 129
425 University Boulevard
Indianapolis, IN 46202-5140
(317) 274-4591
Web site: enroll.iupui.edu

For an application to an allied health program and additional information about allied health programs offered at Indiana University–Purdue University Indianapolis, contact the program(s) of interest or:
E-mail: askahlt@iupui.edu
Web site: sahs.iupui.edu

For financial aid available at Indiana University–Purdue University Indianapolis, contact:

Office of Financial Aid
Indiana University–Purdue University Indianapolis
Cavanaugh Hall 103
425 University Boulevard
Indianapolis, IN 46202-5140
(317) 274-4162
Web site: www.iupui.edu/finaid

Students interested in taking prerequisites at Indiana University–Purdue University Columbus should contact:

Vickie Welsh-Huston
Academic Counselor
Indiana University–Purdue University Columbus
4601 Central Avenue
Columbus, IN 47203-1769
(812) 372-8266

Indiana University Kokomo

Since its establishment in 1945, Indiana University Kokomo has developed as a regional university for commuter students that serves an 11-county area in north central Indiana. IUK offers programs leading to associate, baccalaureate, and master's degrees and a wide variety of continuing education activities.

IUK's heterogeneous student group numbers approximately 3,000 full-time and part-time students. Two-thirds of the classes at IUK have fewer than 30 students, which ensures significant individual attention. The Kokomo campus also offers a broad range of student support services, including career

development and placement assistance, interest testing, tutoring, and child care. In addition, concerts, lectures, and athletic events enhance student life at IUK. Course schedules and student services are designed to meet the needs of both traditional and nontraditional students.

The campus is located on a 54-acre site in the southern part of the city of Kokomo. IUK facilities include classroom buildings, faculty research areas, the Havens Auditorium, and an observatory. The Kellogg Student Center contains student services offices, lounge and cafeteria facilities, a child care center, and a bookstore. The Purdue University Technology Wing includes classrooms, laboratories, faculty and administrative offices of the Purdue School of Technology. A modern 55,000-square-foot library includes an exhibition gallery and the Kresge Auditorium, as well as eight study rooms, space for 50 study carrels, a community conference room, and two classrooms for library-related instruction. A new state-of-the-art 42,000-square-foot science building which will house biology, chemistry, mathematics, physics, information systems, and allied health programs will open in fall 2001.

Information and Applications

For an application to Indiana University Kokomo and other information about the campus, contact:

Office of Admissions
Indiana University Kokomo
2300 S. Washington Street
P.O. Box 9003
Kokomo, IN 46904-9003
(765) 455-9389

For an application to an allied health program and additional information about allied health programs offered at Indiana University Kokomo, contact:

Dr. Robert Roales
Chairperson, Division of Allied Health Sciences
Indiana University Kokomo
P.O. Box 9003
2300 S. Washington Street
Kokomo, IN 46904-9003
(765) 455-9371
Fax: (765) 455-9528

For financial aid available at Indiana University Kokomo, contact:

Office of Financial Aid
Indiana University Kokomo
2300 E. Washington Street
P.O. Box 9003
Kokomo, IN 46904-9003
(765) 455-9359

Indiana University–Purdue University Fort Wayne

Because Indiana University–Purdue University Fort Wayne combines two universities in one, it provides an unusually comprehensive range of undergraduate programs. IPFW's urban location allows university programs to offer many opportunities for practical experience and projects that tap community resources.

Since classes are relatively small, faculty have time for their students, in and out of class. Faculty members at IPFW are known for their dedication to teaching as well as for their professional expertise.

At IPFW, recent high school graduates mingle with older students who want to enrich their lives or take new career paths. This diverse group of students participate together in campus activities that include lecture and film series, concerts and plays, intramural and intercollegiate sports, fraternal organizations, and special interest groups.

IPFW prizes its rich mix of personalities and cultures and organizes special services for minority, international, and physically handicapped students. Other services include financial aid; individualized academic advising; well-equipped modern classrooms, laboratories, and libraries; career and placement counseling; and child care.

Information and Applications

For an application to Indiana University–Purdue University Fort Wayne and other information about the campus, contact:

Office of Admissions
Indiana University–Purdue University Fort Wayne
Ketter Hall 103
2101 Coliseum Boulevard East
Fort Wayne, IN 46805-1499
(219) 481-6812

For an application to an allied health program and additional information about allied health programs offered at Indiana University–Purdue University Fort Wayne, contact:

Dean's Office
School of Health Sciences
Indiana University–Purdue University Fort Wayne
Neff Hall 142
2101 Coliseum Boulevard East
Fort Wayne, IN 46805-1499
(219) 481-6967

For financial aid available at Indiana University–Purdue University Fort Wayne, contact:

Office of Financial Aid
Indiana University–Purdue University Fort Wayne
Ketter Hall 109
2101 Coliseum Boulevard East
Fort Wayne, IN 46805-1499
(219) 481-6820

Indiana University Northwest

Indiana University Northwest in Gary serves the highly diverse area of northwest Indiana, which includes urban, rural, industrial, and metropolitan characteristics. To meet the educational needs of this complex region, IUN offers a range of degree programs at the associate, baccalaureate, and master's levels as well as certificate and postbaccalaureate programs. IUN's broadly conceived educational and cultural events enrich the quality of life in northwest Indiana.

The rich economic, cultural, and racial diversity of northwestern Indiana is found on the campus. The

student body is composed of both traditional students and students who have been away from school for a number of years, many of whom are working on a degree while continuing to earn a living. This mixture enhances the educational experience for all students at IUN. The campus offers a full range of student support services and flexible scheduling to meet the needs of its diverse student body. In addition, many cultural, social, and special interest activities on campus contribute to student life at IU Northwest.

Information and Applications

For an application to Indiana University Northwest at Gary and other information about the campus, contact:

Office of Admissions
Indiana University Northwest
Hawthorn Hall 100A
3400 Broadway
Gary, IN 46408-1197
(219) 980-6821

For an application to an allied health program and additional information about allied health programs offered at Indiana University Northwest, contact:

Division of Allied Health Sciences
Indiana University Northwest
Hawthorn Hall 206
3400 Broadway
Gary, IN 46408-1197
(219) 980-6863
Fax: (219) 980-6649

For financial aid available at Indiana University Northwest, contact:

Office of Financial Aid
Indiana University Northwest
Hawthorn Hall 101D
3400 Broadway
Gary, IN 46408-1197
(219) 980-6777

Indiana University South Bend

Centrally located in the Michiana area, Indiana University South Bend offers 91 degree programs for its almost 7,100 students. IUSB responds to today's college students by designing its academic programs, schedules, and support services to meet the needs of a diverse student body that includes many adult and part-time students as well as traditional students.

The campus lists teaching as its highest priority, and a student/faculty ratio of 20 to 1 ensures that students receive individual attention. More than 90 percent of the campus's full-time faculty have earned the highest degrees in their disciplines. IUSB offers a full range of student support services, from career and placement services to child care and a preschool. The many campus activities include lectures, films, plays, special interest groups, and athletics. IUSB's music and theater programs are important contributors to the cultural life of the Michiana region.

Facilities at IUSB house a full university program: laboratories, lecture halls, study areas, theaters, a cafeteria, lounges, and recreational centers.

Computer facilities are available to all students. The academic heart of the campus is the Franklin D. Schurz Library, which contains more than 370,000 volumes and several special collections.

Information and Applications

For an application to Indiana University South Bend and other information about the campus, contact:

Office of Admissions
Indiana University South Bend
Administrative Building 169
1700 Mishawaka Avenue
P.O. Box 7111
South Bend, IN 46634-7111
(219) 237-4839

For an application to an allied health program and additional information about allied health programs offered at Indiana University South Bend, contact:

Jim H. Howard, Director, Radiography Program
Indiana University South Bend
Northside Hall 405
1700 Mishawaka Avenue
P.O. Box 7111
South Bend, IN 46634-7111
(219) 237-6569

For financial aid available at Indiana University South Bend, contact:

Office of Financial Aid
Indiana University South Bend
Administrative Building 157
1700 Mishawaka Avenue
P.O. Box 7111
South Bend, IN 46634-7111
(219) 237-4358

Indiana University Bloomington

Indiana University Bloomington is the university's primary residential campus, with nearly 35,000 students pursuing academic degrees. An outstanding faculty that numbers more than 1,500 has developed a reputation for research discoveries that have broadened knowledge in many areas.

Located in the rolling hills of southern Indiana, IU Bloomington is known for the wooded beauty of its campus. The city of Bloomington, with a population of 60,000, has been selected by Rand McNally as one of the eight most desirable places to live in the nation based on economy, personal safety, climate, housing, services, and leisure activities.

Students from all 50 states and 108 foreign countries study on the Bloomington campus. More than 5,000 course offerings provide a wealth of academic opportunity, and a wide array of lectures and seminars complement classroom, laboratory, and studio activity. The University Theatre, the Art Museum, and the Musical Arts Center serve as major resources for university programs in the performing and fine arts.

The resources of the University Libraries, with 7 million bound volumes and 17 million other holdings, are available to students on all campuses of the university and to all citizens of Indiana.

Information and Applications

While professional programs in allied health are not offered on the Bloomington campus, prerequisite courses are available. Students who want to take prerequisites toward an allied health degree on the Bloomington campus should contact:

John Simpson
Director, Health Professions and Pre-law Information Center

Indiana University Bloomington
Maxwell Hall 021
Bloomington, IN 47405-4601
(812) 855-9766

Indiana University Southeast

Indiana University Southeast is a modern commuter campus at New Albany in the metropolitan Louisville area. Its location permits students to benefit from many cultural, recreational, and employment opportunities.

IU Southeast offers 46 degree programs, including associate, bachelor's, and master's degrees, for its student body of 5,500. Approximately half of the IU Southeast students attend full time, while others take advantage of the convenience and flexibility of IUS programs to take courses related to their jobs, to combine work or family responsibilities with part-time study for a degree, or to take special courses of personal interest.

More than 85 percent of the full-time faculty at IU Southeast hold the highest degrees attainable in their fields. The average class size is 23 students.

Students can participate in more than 40 organizations, including fraternities and sororities and intercollegiate and intramural sports programs. With concerts, lectures, films, and theatrical productions, IUS offers students a rich cultural life. An extensive range of student support services includes the Career Services and Placement Office and the Student Development Center.

Information and Applications

While most professional programs in allied health are not offered on the Southeast campus, prerequisite courses are available in cytotechnology, health information administration, health sciences education, occupational therapy, paramedic science, radiation therapy, radiologic sciences, and respiratory therapy. Students are able to obtain certificates in Medical Transcription and in Coding Specialist. Baccalaureate degrees are also available that will prepare a student for entry into the physical therapy master's degree program. Students who want to take prerequisites toward an allied health degree on the Southeast (New Albany) campus should contact:

Dr. Teresa Forsyth
Division of Natural Sciences, LS 202
Indiana University Southeast
4201 Grant Line Road
New Albany, IN 47150-6405
(812) 941-2657

Indiana University East

Indiana University East provides educational opportunities for east central Indiana, stressing accessible education, so area residents can achieve their personal and professional goals while living at home. The campus offers flexible schedules with day, evening, and weekend classes to allow students to take courses while maintaining family and job responsibilities. Ninety percent of the students at IU East work full or part time, and 72 percent attend the university part time.

The faculty at IU East is recognized for distinguished teaching, and an average class size of 19 makes frequent student-faculty interaction possible. Sixty-five percent of the full-time faculty members hold the highest degrees in their fields.

IU East stresses the importance of liberal education, career education, and lifelong learning in its varied offerings, which include 26 degree programs. The campus offers a full range of student support services for its more than 2,400 students. Career and academic counseling as well as academic support services are available through the IU East Academic Advising Center.

Information and Applications

While professional programs in allied health are not offered on the IU East campus, prerequisite courses are available. Students who want to take prerequisites toward an allied health degree on the East (Richmond) campus should contact:

Dr. Joan Lafuze
Professor
Department of Biology
Indiana University East
Whitewater Hall 268
2325 Chester Boulevard
Richmond, IN 47374-1289
(317) 631-0941 or (317) 278-0616

School of Allied Health Sciences

Dean's Remarks

Thank you for your interest in the Indiana University School of Allied Health Sciences. Allied health degrees were first offered through Indiana University in 1940 with the implementation of the Bachelor of Science degree in Medical Technology. Over the years we have grown to 28 certificate and degree programs offered on five of the eight campuses of Indiana University. This remarkable growth has resulted in the School of Allied Health Sciences being the largest allied health unit in the state of Indiana and one of the largest in the country.

Perhaps our most cherished asset is the quality of our students. The GPA of students selected for our professional programs routinely ranks among the highest on the university campus. Our students' commitment to excellence is expressed in many ways: honors programs, undergraduate research initiatives, national service awards, and pass rates on

certification/licensure exams that exceed national averages, to name a few. Over 90 percent of our students come from Indiana, and upon completion of their studies they seek careers in a wide variety of settings to promote the health and well being of Indiana residents. It is estimated that six of every 10 health care workers come from an allied health discipline. They may be clinical laboratory personnel using sophisticated medical technology to detect abnormalities in blood and tissue, health care administrators collecting information for patient records and insurance reimbursement, or professionals providing specialized patient care.

The school's faculty members are recognized nationally and internationally for their contributions. They serve on national licensure boards and are leaders of national professional societies, reviewers for federal granting agencies, and invited speakers. Their research is published in the best journals in their disciplines, and they routinely serve as consultants to community agencies, state and national health care facilities, and corporations. But their principal goal is to educate the next generation of practitioners to effectively function in the health care environment of the future.

The services offered by the school facilitate our student-centered approach to learning. Student advising starts immediately when an individual indicates a desire to study in one of our educational programs. Our Office of Academic and Student Affairs sponsors important student organizations in combination with its statewide advising network. The Office of Research and Graduate Studies is the entry point for learning more about our outstanding opportunities in graduate education.

To promote excellence in education, research, and service, the School of Allied Health Sciences maintains strong relationships with a variety of critical constituent groups. Our alumni activities keep our graduates involved. We improve facilities and offer scholarships through generous donations by alumni and friends of the school. The school's collaboration with other academic units promotes creative opportunities, and our affiliation with over 500 health care facilities gives students unique educational experiences. Moreover, the involvement of associated faculty is essential to fully implement the school's curriculum. We are proud of these relationships and continue to seek other collaborative opportunities.

Health care delivery in this country is undergoing dramatic change, but it remains one of the most personally fulfilling professions, and we know that most of our students pursue it with a sense of mission. The School of Allied Health Sciences strives to provide a comprehensive educational experience that helps students realize their goals and ambitions.

Purpose

The Indiana University School of Allied Health Sciences is charged with providing allied health education within Indiana University. The school prepares allied health professionals to provide management skills for health services or diagnostic, therapeutic, and rehabilitative patient care. As part of a major university, the school accepts and fulfills four major responsibilities by providing (1) opportunities

to acquire a sound basic education in allied health sciences and to foster the development of lifelong habits of scholarship and service; (2) advancement of knowledge through research; (3) continuing education programs aimed at maintaining and improving the competence of those allied health professionals engaged in patient care or supportive health services; and (4) multiple services to the people of the state of Indiana in all areas of allied health sciences, patient care, and administrative supportive health services.

Philosophy

The School of Allied Health Sciences of Indiana University is committed to quality preparation of allied health personnel who have a concern for the well-being and welfare of the people they serve. The school integrates teaching, research, and service through the efforts of its faculty and students. This integration results in quality programs that have a significant, positive impact on health care.

Each program offered in the school provides the allied health student with an opportunity to develop expertise, scientific knowledge, and professional attitudes that will enable the student to contribute to the health of society and obtain career satisfaction. The programs adhere to specific professional guidelines or standards and are designed in collaboration with the appropriate accrediting bodies. All curricula are based upon a foundation in the liberal arts and sciences, which is essential for an informed and productive life.

The faculty believes that the education of allied health personnel follows a coordinated and logical interdisciplinary process based on a core body of knowledge germane to allied health practice. By sharing experiences related to a variety of activities, the student is introduced to others who have common, yet unique, educational interests. Appreciation of the contribution of each health discipline and interaction with peers and scholars in different health professions encourage the coordination of health planning, health services, disease prevention, and health promotion.

Education is perceived by the faculty as an evolving and continuing process toward an increased ability to think, reason, and judge that leads to a satisfying and self-disciplined life. Effective education allows for individual difference and is provided in a participative atmosphere. It is believed that freedom of choice and meaningful assimilation of facts nurture the development of the students, enhance their understanding of patients' and clients' problems, and promote a dedication to lifelong self-evaluation and self-education.

Faculty of the School of Allied Health Sciences are fully qualified in their fields of expertise and hold appropriate degrees and certification or licensure. In implementing the objectives of the school, they strive to keep their professional and teaching competencies current. The faculty are committed to preparing uniquely qualified personnel who must meet the challenges of the complex and ever-changing health care needs of society.

The graduates of the school should be prepared to apply the knowledge they have attained in their selected discipline. Graduates have a responsibility to maintain competency through formal and informal continuing education and to contribute to new knowledge in their discipline. Graduates have legal, moral, and ethical responsibilities to their employers, clients, patients, and the public and are expected to participate in community and professional activities.

This statement of philosophy forms the core of values from which the school's vision, mission, objectives, policies, and procedures are derived.

Vision

The vision of the School of Allied Health Sciences is to be a nationally and internationally recognized leader in allied health education, research, and service, while providing a comprehensive array of high-quality health care professionals in Indiana.

Mission

The School of Allied Health Sciences has a long tradition of academic excellence. The school's major purpose is to provide quality degree programs in the allied health sciences to meet the needs of the people of the state of Indiana. In fulfilling its fundamental purpose, the school seeks to develop and maintain a scholarly and competent faculty capable of achieving the following goals:

- To build upon sound principles of general education by preparing students to communicate effectively, exhibit quantitative skills, think critically, integrate and apply knowledge, exhibit intellectual depth and breadth, be intellectually adaptive, appreciate societal and cultural diversity, and apply ethical standards and values to professional practice.
- To provide undergraduate and graduate degree programs that offer education related to the provision and management of health services by the various allied health professions.
- To contribute to the advancement of knowledge through research.
- To provide continuing education for allied health practitioners wishing to further their career development.
- To foster the development of lifelong habits for scholarship and service among faculty and students.

In addition to the mission of the school, each program has its own mission statement which can be found on the school Web site or in the brochures produced by individual programs. Please see the Web site or contact individual programs for further information.

History of Current Degree Programs

The School of Allied Health Sciences is the prebaccalaureate and postbaccalaureate academic, administrative, and fiscal unit of the School of Medicine. Allied Health Sciences was first established as a division in 1959 by action of the Trustees of Indiana University. In 1960, the Trustees conferred upon the faculty of the School of Medicine the responsibility and authority to qualify for the Bachelor of Science degree those students

successfully completing the prescribed curriculum in four allied health programs that had been offered long before the establishment of the division. Since that time, additional baccalaureate programs and new programs at the associate and master's levels have been approved and initiated.

At the April 1991 meeting of the Trustees of Indiana University, the Division of Allied Health Sciences was approved as a university-wide school. The School of Allied Health Sciences encompasses allied health programming on five of the eight campuses of Indiana University.

The School of Allied Health Sciences is composed of 25 distinct allied health academic degree programs. The school is one of the oldest allied health academic units in the country and has provided leadership in allied health services, as well as research and education, to the citizens of Indiana, the region, and the nation for 37 years. In 1967, the school was one of 13 allied health units from across the country to participate in the planning and formation of the national professional society—the Association of Schools of Allied Health Programs.

Accreditation

The School of Allied Health Sciences shares with the other schools of the university the accreditation accorded Indiana University as a member of the North Central Association of Colleges and Schools.

In addition, the professional programs are individually accredited by appropriate governing agencies within the discipline. See program-specific sections.

Preadmission Status

Enrollment at Indiana University does not guarantee admission to the professional programs offered through the School of Allied Health Sciences. To be eligible for admission to the programs offered by the school, students must adhere to the academic regulations of the academic unit in which they are enrolled and meet school and program preadmission requirements as stipulated in the general-education and program sections of this bulletin. Admission to many programs is competitive; therefore, completion of the prerequisites does not guarantee admission to the program. On some campuses a student may be admitted to the School of Allied Health Sciences as a preprofessional student; however, this status is for academic advising purposes only and in no way influences admittance into a professional program.

Change of Educational Objective for Preprofessional Students

Changing one's educational objective to an allied health program does not guarantee admission to the school or the program. Students thinking of changing their educational objective should consult with the allied health counselor on their respective campuses prior to initiating the change. Pre-allied health students in University College, the School of Allied Health Sciences, or other Indiana University schools or divisions must follow that academic unit's procedures for changing the educational objective. All students must meet school and program

admission requirements in order to be admitted to a professional program offered through the School of Allied Health Sciences.

Admission Policies

The admission policies of individual programs within the School of Allied Health Sciences on all campuses comply with the following standards:

Prerequisite Course Work Applicants must complete prerequisite courses at an accredited high school (or by GED equivalent), college, or university. Individual programs determine the specific courses and the minimum grade that must be achieved in any course (see specific program information); therefore, program-specific requirements may differ. The completion of a prerequisite course with a Pass/Fail grade must be approved by each program. Students are eligible to apply for admission to an associate or baccalaureate program when their academic progress shows reasonable probability that entry-level requirements can be completed prior to the beginning date of the professional program. Applicants should read the “Admission Policies” and “Program Descriptions” sections of this bulletin for specific entry-level requirements.

Grade Requirements Without exception, applicants must have a cumulative grade point average of at least 2.00 on a 4.00 scale for *all* course work completed at Indiana University and/or any other college or university. Some programs have established a minimum grade point average higher than 2.00 on a 4.00 scale. Some programs also use a component of the overall grade point average (for example, math/science grade point average). See specific program information. Only completed course work and the resultant grade point average are evaluated. In evaluating the high school record of applicants to an associate degree program, only academic course work will be used in calculating the admission grade point average. Students may not be admitted to, hold a position in, or begin a program if they would be on probation as defined by the School of Allied Health Sciences. Students are placed on probation within the School of Allied Health Sciences when the cumulative and/or most recently completed semester grade point average falls below 2.00 on a 4.00 scale. The applicant must also maintain the minimum grade point average as established by the program. The applicant’s grade point average will be the major consideration (51 percent or greater) for admission. (See specific program information.)

Repeated Courses Applicants whose cumulative grade point average is at least 2.00 on a 4.00 scale and who have repeated courses may petition to have their *admission* grade point average recalculated. The recalculation will use the most recent grade of the repeated course. This repeat option includes the use of the Indiana University FX option and is applied with the following restrictions: it can be used for a total of no more than 15 credits; the grade will be deleted not more than twice for a given course; each attempt will count toward the 15 credit hour limit; and W’s cannot be used to replace a grade and will not count toward the 15 credit hours. If more than 15 credit hours are repeated, the applicant will determine which of the repeated courses are to be

deleted. The petition must be attached to the application. The effective date is the beginning of the 1996 fall semester. Any course being used to replace an earlier taking of the course must be taken in the fall of 1996 or later.

Academic Bankruptcy Applicants whose grade point average is at least 2.00 on a 4.00 scale may petition the program for up to one year (fall, spring, and summer) of academic bankruptcy based on compelling nonacademic reasons. The bankrupted semesters must be consecutive. Academic bankruptcy is for admission purposes only and in no way affects the university’s official grade point average. Course work completed in a semester that has been bankrupted for admission purposes cannot be used for the fulfillment of program prerequisites or counted as credit hours toward the degree. The petition must be attached to the application.

Fresh Start The Indiana University School of Allied Health Sciences, for the purposes of selecting candidates for its various undergraduate programs, will allow an applicant to appeal to the program’s admissions committee for “academic forgiveness.” Students must request academic forgiveness at the time of program application.

Academic forgiveness will eliminate, during the forgiveness period, all courses and grades earned by the applicant for the purpose of calculating the admission grade point average. Only grades from courses completed after the forgiveness period will be considered in admission calculations. No course taken during this forgiveness period may be used for the fulfillment of any prerequisite or graduation requirement.

The forgiveness period begins with the applicant’s first academic enrollment period (at any college/university) and ends on a date designated by the applicant but no less than four calendar years for baccalaureate degree programs (two calendar years for associate degree programs) prior to the program’s starting date. To invoke this policy, the student must meet the following conditions:

1. have a 2.00 grade point average (on a 4.00 scale), including all course work taken during the requested forgiveness period,
2. complete a minimum of 24 credit hours for bachelor’s degree programs (12 credit hours for associate degree programs) of graded course work after the forgiveness period, and
3. meet all other program-specific admission requirements.

The granting of academic forgiveness by a program does not alter the student’s official academic record. Students must meet all minimum degree requirements and may invoke this policy only one time. The petition for academic forgiveness must be attached to the application.

Credit by Examination Applicants to any of the Indiana University School of Allied Health Sciences programs who have received “credit by examination” in a course that meets a program prerequisite will be viewed as meeting this specified requirement. Application of this policy for math/science prerequisites will be determined at the program level.

Any “credit by examination” hours received by the student must be transferred onto the student’s university transcript before it can be considered as meeting a program’s admissions prerequisite.

At IUPUI, “credit by examination” can be earned from the following sources: Advance Placement (AP), the College Level Examination Program (CLEP), the Defense Activity for Non-Traditional Education Support (DANTES), and Indiana University departmental examinations. Students on other campuses should contact the School of Allied Health Sciences Administrative Office on their campus.

Testing Applicants may be required to complete testing as designated by the program. Testing results may be used as a component of the admissions decision unless their use would violate state or federal law.

Interview Applicants may be required to complete a personal interview. The interview may be a component of the admission decision.

Technical Standards for Admission and Retention

Since a degree in one of the allied health sciences disciplines attests to the mastery of knowledge and skills, graduates must possess the essential knowledge and skills to function in a broad variety of clinical situations and render a wide spectrum of patient care in a safe and effective manner.

The School of Allied Health Sciences faculty has therefore specified nonacademic criteria, Technical Standards for Admission and Retention, which all applicants/students are expected to meet in order to participate in the allied health programs. These criteria include the following five categories: (1) observation; (2) communication; (3) motor function; (4) intellectual-conceptual, integrative, and quantitative abilities; and (5) behavioral and social attributes. All accepted students will be required to sign a statement certifying that they can meet the technical standards that apply to the program to which they have been admitted.

A copy of the technical standards will be sent to each applicant with an offer of admission. Additionally, a copy may be obtained from the program of interest or the Office of Academic and Student Affairs in the School of Allied Health Sciences.

Preference to In-State Residents Preference is given to applicants who are Indiana residents. Preference is also given to applicants who complete the majority of applicable course work at a public college or university in Indiana. This policy is applicable only to undergraduate programs, and is applied at the time of program application.

Equal Opportunity/Affirmative Action Policy Indiana University pledges to continue its commitment to the achievement of equal opportunity within the university and throughout American society. In this regard, Indiana University will recruit, hire, promote, educate, and provide services to persons based upon their individual qualifications. Indiana University prohibits discrimination based on arbitrary consideration of such characteristics as age, color, disability, ethnicity, gender, marital status, national origin, race, religion, sexual orientation, or

veteran status. Indiana University shall take affirmative action, positive and extraordinary, to overcome the discriminatory effects of traditional policies and procedures with regard to the disabled, minorities, women, and Vietnam-era veterans. An office on each campus monitors the university's policies and assists individuals who have questions or problems related to discrimination.

Policy Changes Policies concerning the minimum grade point average for admission consideration are subject to change. Changes for beginning freshmen become effective the semester following the announcement of the decision to the university counselors and other constituencies. Changes in prerequisite courses or the minimum grade required in a prerequisite course will be applied as follows for continuing students:

1. Applicants who have taken the course prior to the change and who meet the old requirement will have satisfactorily completed the requirement.
2. Applicants who have taken the course prior to the change and who do not meet the old requirement must complete the course under the new requirements.
3. Applicants enrolled in the course at the time of the change will be permitted to meet the old requirements.
4. Applicants who have not taken the course prior to the change will have to meet the new requirements.

Admission Procedures

1. In addition to the general admission requirements stated above, the program-specific sections in this bulletin must be read for admission requirements and deadlines.
2. Individuals seeking admission to a professional program must submit a complete school/division application prior to the program's application deadline. See the campus information section of this bulletin for names, addresses, and telephone numbers of persons to contact for applications. When applying to more than one program or campus, separate applications must be completed. Admission to the professional program is competitive; application for admission to the school does not constitute automatic admission to a program.
3. Applicants who are not Indiana University students must also file an Indiana University application and pay the application fee prior to the program application deadline. Applications for admission to Indiana University can be obtained from the Office of Admissions on the campus of interest. Some campuses may have application deadlines.
4. All complete applications are reviewed by the program's admission committee. The selection of a class is based on school and program admission criteria. All applicants receive written notification of their admission status.
5. Applicants may appeal any admission decision except the requirement of a cumulative grade point average of 2.00 on a 4.00 scale. Copies of the policies and procedures governing the

appeals process are available on request from any of the allied health administrative offices.

6. Individuals interested in being admitted to one of the school's programs should contact the program of interest annually for an update of admission criteria.
7. The school/division application is revised each summer. Applicants must obtain an application for the year in which they wish to apply.
8. Applicants should check the current school application for submission deadlines.
9. Students who have been convicted of a felony may be unable to obtain appropriate credentials to practice in some disciplines. Contact the program director for further information.
10. Individuals whose names appear on the Sex Offenders List will not be allowed to pursue admission to any program in the School of Allied Health Science.
11. Grades earned in remedial courses may be utilized differently by different programs to calculate the competitive grade point average. See the program-specific section.

Transfer Credit

Acceptance of credit from a regionally accredited college or university for transfer to Indiana University will be determined by the campus office of admissions.

While the grades from course work completed at Indiana University and all other colleges and universities are used to calculate the admission grade point average, only grades of C (2.00) or above will be considered for transfer. The university does not accept the transference of special credit by examination awarded by another college or university. The transfer of credit earned through a regionally accredited junior college or a community college is normally limited to the equivalent of two years of academic work toward a baccalaureate degree and one year of academic work toward an associate degree.

Correspondence Courses All credit to be applied to an allied health degree earned through IU's Independent Study Program, correspondence study, or other nontraditional methods must be validated and approved by the faculty of the program to which the student is applying. The School of Allied Health Sciences retains the right to determine the acceptability of transfer credit to meet degree requirements.

UNDERGRADUATE Degree Requirements

The faculty of the School of Allied Health Sciences, Indiana University School of Medicine, will recommend for degrees only those students who have been admitted to Indiana University and are students in good standing in the School of Allied Health Sciences. Candidates for degrees are eligible for graduation upon completion of all program requirements in effect when the student first enrolls in professional course work, provided requirements are met within five years. (Exception: State rules require students in paramedic science to complete the professional program in two years.)

The program faculty reserve the right to require students whose program course of study is interrupted for any reason to meet requirements as specified by the director of the program and the dean of the School of Allied Health Sciences or the dean's campus designee. Changes in the student's original program may be necessary when, for example, a curriculum has been revised, offerings are no longer available, significant changes in curriculum content have occurred, or repetition of material is deemed essential to assure continuity of clinical competency.

Academic counseling and guidance are available for students. Students are responsible for seeking such counseling and guidance and for planning courses of study to meet degree requirements.

General Undergraduate Requirements

Minimum Degree Requirements

1. Based upon earned Indiana University credits, a minimum cumulative grade point average of 2.00 must be maintained.
2. A minimum of 30 credit hours of program or program-related course work must be completed in residence on the Indiana University campus at which the degree is awarded.
3. Additional general requirements must be completed for the bachelor's degree or associate degree as listed below:

Bachelor's Degree

- a. Minimum of 122 credit hours.
- b. School baccalaureate degree general-education requirements.
- c. Minimum of 30 credit hours in courses at the 300-400 (junior-senior) level.

Associate Degree

- a. Minimum of 60 credit hours.
- b. School associate degree general-education requirements.

Students must complete the prescribed course of study, meeting program academic, professional, and technical standards requirements, which may exceed the requirements stated above. Program professional standards consist of ethics and proper health care practices to which students must adhere. Program faculty will distribute these standards when appropriate.

During the fall semester prior to the graduation year, the student is responsible for submitting an intent-to-graduate form, which indicates that the student plans to complete all requirements for the appropriate degree.

Work for a degree must be completed within five years from the time the student first enrolls in the professional program. (Exception: State rules require students in paramedic science to complete the professional program in two years.) Under unusual circumstances, the program director may recommend granting a waiver of this requirement.

Degrees are granted in May, June, August, and December; however, Commencement exercises are held only in May.

General-Education Requirements

Each candidate for an undergraduate allied health degree must complete course work in the following categories:

Basic General-Education Areas

A.S. Degree

Written Communication, one course

Verbal Communication, one course

At least one course from any two of the following categories:

College-level Mathematics

Social-Behavioral Sciences

Basic Life-Physical Sciences

Humanities

(classical studies, literature, English, folklore, foreign language, history, journalism, philosophy, religion, speech communication, minority studies, visual and performing arts)

B.S. Degree

Written Communication, three courses

(two prerequisites: one in professional curriculum. See program section for specific content emphasis.)

Verbal Communication, one course

Humanities, one course

(classical studies, literature, English, folklore, foreign language, history, journalism, philosophy, religion, speech communication, minority studies, visual and performing arts)

College-level Mathematics, one course

Social-Behavioral Sciences, two courses

Basic Life-Physical Sciences, two courses

In addition to the above general-education requirements, students are strongly encouraged to learn to do word processing, use e-mail, and navigate the internet prior to the beginning of the professional program. See program-specific sections for program requirements.

Program Prerequisites

Each program has additional specific course requirements. Refer to the program of interest in this bulletin for specific information.

Professional Program Requirements

An outline of the professional program is contained in the program-specific information in this bulletin.

Academic Regulations

All students admitted to the School of Allied Health Sciences are governed by the following academic regulations.

Grades All students admitted to the School of Allied Health Sciences are governed by the grade definitions and minimum grade requirements as established by their professional program. Instructors are responsible for establishing and publishing the grading scale applicable to their courses.

Points are assigned to determine the cumulative grade point average as follows:

A+ or A	= 4.00	C	= 2.00
A-	= 3.70	C-	= 1.70
B+	= 3.30	D+	= 1.30
B	= 3.00	D	= 1.00
B-	= 2.70	D-	= 0.70
C+	= 2.30	F	= 0.00

No points are assigned for I (Incomplete); S (Satisfactory); P (Passing); R (Deferred); W (Withdrawn); or FX, DX, CX, or BX (Course Repeated) grades.

Grade Point Average Courses transferred from other institutions are not used to calculate the cumulative grade point average for graduation. Regardless of the number of times they are taken, all courses that are repeated are evaluated by averaging the grades received. Courses for which the grades of I, S, P, R, W, or FX are assigned are not used to calculate the cumulative grade point average since there are no points assigned to these grades.

R Grade, Deferred The R grade (deferred grade) is applicable only to courses approved for that purpose. The grade R used on the final report indicates that the nature of the course is such that the work of the student can be evaluated only after more than one term. Upon completion of the course, the instructor will submit paperwork to replace the R grade on the transcript with the earned grade.

Pass/Fail Pass/Fail grading is a student option in elective courses. Any student in good standing may enroll in elective courses for which the grade assigned is P (Pass) or F (Failure). Such courses, if passed, are credited toward the degree but do not affect the grade point average. A failing grade adversely affects the grade point average. Students may not use the Pass/Fail option for a stated prerequisite or a professional course. No more than one Pass/Fail course may be taken in any one semester. Students are limited to a maximum of 24 Pass/Fail credit hours for the baccalaureate degree and a maximum of 12 Pass/Fail credit hours for the associate degree.

Satisfactory/Fail A grade of S (Satisfactory Performance) or F (Failure) is used for approved courses. In such courses, the only grades permitted are S and F, and students are notified during the first class session of the S/F grading policy for the course. The credit hours earned with a grade of S count toward graduation, but the S grade will not be calculated in the grade point average. However, an F grade is computed in the grade point average. The number of courses taken on an S/F basis does not affect the number of courses permissible on a P/F basis.

Incompletes A grade of I (Incomplete) indicates that a student made successful progress in a course and completed a majority of the course work satisfactorily but, because of a compelling nonacademic reason, did not complete all of the course work by the end of the grading period. The course instructor establishes the criteria, procedure, and time limit for the removal of the I grade. The time limit, however, may not exceed one calendar year, after which time the I grade, if not changed by the instructor, automatically becomes an F.

Special Credit Policy The School of Allied Health Sciences may award special credit to students who are enrolled at Indiana University seeking a degree and who possess, by previous education or experience, a background in an allied health discipline represented in the school. The mechanisms by which a student may be awarded credit include credit by credentials, credit by experience, and credit by examination. Each discipline has policies that define how these mechanisms apply to a student seeking credit from that discipline. Students may obtain a copy of the school's Special Credit Policy and Procedure by contacting any of the allied health administrative offices.

Withdrawal from a Course With appropriate approval of the faculty, withdrawal is permitted at or before midsemester with an automatic grade of W. A student withdrawing during the third quarter of each semester will receive a W or an F depending upon the student's performance in the course. In the last quarter of each semester, students may withdraw with a grade of either W or F at the instructor's discretion with the approval of the instructor and the dean or campus designee and dependent upon student performance at the time withdrawal is requested. Petitions for withdrawal in the last quarter of the semester will only be considered if the student provides a compelling nonacademic reason. The desire to avoid a low grade is not an acceptable reason for withdrawal from a course.

Students who alter their original class schedule, whether by personal incentive or university directive, must do so officially by filing the appropriate forms with the registrar. Students who do not assume this responsibility are jeopardizing their records with the possibility of incurring an F in a course not properly dropped and/or not receiving credit in a course improperly added.

Double Major A double major does not exist in the School of Allied Health Sciences, and second major options have not been established between the school and any other academic unit. Each degree in the School of Allied Health Sciences is a separate academic curriculum, and students may not pursue a double major.

Multiple Degrees Students earning more than one degree at the same level are required to meet the academic requirements for the degree in each school and must be recommended for the degree by the faculty of each school. Students receiving a degree from the School of Allied Health Sciences are required to complete the professional component in sequence with their class of admission.

Grade Replacement Policy (For IUPUI students only) The purpose of this policy is to allow students who have done poorly in a course to repeat the course and remove the weight of the earlier grade from the student's cumulative grade point average when the student is applying for admission into a School of Allied Health Sciences program. This policy expands the FX policy by extending the replacement option to courses in which students receive any grade rather than just grades of F. Schools retain the right to consider the student's complete academic record for

purposes of admission to the school, granting of honors, or meeting the minimum grade point average required for conferral of the degree. Use of the grade replacement policy is for admissions purposes only and in no way affects the student's official university grade point average.

1. The effective date is the beginning of the fall 1996 semester. Any course being used to replace an earlier taking of the course must be taken in the fall of 1996 or later.
2. The provisions apply to students pursuing an undergraduate degree only.
3. A student may exercise the grade replacement policy for a maximum of 15 credit hours. The 15 credit hour limit includes any course previously replaced using the FX policy.
4. Grade replacement replaces the use of the FX option. Grades previously granted FX will be honored subject to statement 3 above.
5. A student may exercise the grade replacement policy no more than two times for a single course. Each attempted replacement will count toward the 15 credit hour limit.
6. Once it is invoked, a student may not subsequently request reversal of the grade replacement granted to a particular course.
7. Any grade may be replaced. The replaced grade will then be excluded from the cumulative grade point average. However, the course listing and the replaced grade will remain on the student's academic record with an "X" denoting that the grade is excluded from the cumulative grade point average.
8. Invocation of the forgiveness option does not preclude a student from using grade replacement for work taken subsequent to re-enrollment as defined by the Forgiveness Policy.

Grade replacement is available for courses taken at Indiana University. Schools retain the right to consider records of performance from other universities in determining admission to the school and granting of honors. This assumes that if the student's initial course was taken on another IU campus, that campus is willing to place the replacement flag on the course at the request of the IUPUI registrar.

Remedial Courses Generally, remedial and refresher courses will not satisfy any course requirement for any allied health sciences degree. Contact the program for further information.

Academic Policies

Students in Good Standing Students must maintain a minimum cumulative grade point average of 2.00 (C) and a minimum grade point average of 2.00 for the most recent academic session and meet additional program, academic, and professional standards in order to be considered in good standing. Students are informed of program, academic, and professional standards during program orientation.

Class Standing Within Indiana University, class standing is based on the total number of credit hours a student has earned. However, within the school, class standing is assigned according to a student's progress in the professional curriculum.

Semester Load To be considered a full-time student by the university for each session, the student

must register for a minimum of 12 credit hours each fall and spring semester and 6 credit hours each summer I and II. The maximum load is 18 credit hours. The number of credit hours determining full-time student status may vary with the nature of the program. For any enrollment period required by a program, the student is considered to be full time regardless of the number of credit hours taken during that period. Students who want to carry more than 18 credits must obtain permission of the program director and the dean or the dean's campus representative. In addition, students should have a cumulative 3.00 (B) average or have earned a 3.00 (B) average in their last full semester.

Probation Upon the recommendation of the faculty in the student's program, a student is placed on probation. Probationary recommendations are made when the student does not meet standards of academic performance or professional behavior. A student will be placed on academic probation for the academic session following the one in which the student fails to attain a minimum 2.00 (C) cumulative and/or semester grade point average. Individual programs may have additional academic and/or professional standards. A student who fails to meet these program-specific standards may also be placed on probation. Students are informed of program-specific standards upon entering the program. A student will be removed from probation after satisfactorily completing the program's specified requirements. Students are notified in writing of probationary actions by the school's dean or the dean's campus representative.

Dismissal Upon the recommendation of the faculty in the student's program, a student may be dismissed from the school. Dismissal is based on the failure to meet academic or professional standards. The student will be informed of the dismissal in writing by the school's dean or the dean's campus representative. A student who has been dismissed from the school may not apply for readmission to the program in which the student was enrolled at the time of dismissal. Under special circumstances, a waiver may be requested by the program and forwarded to the school's appeals committee for action.

Academic Standards A student may be dismissed from the School of Allied Health Sciences when, in the judgment of the faculty, the student has ceased to make satisfactory progress toward a degree. When an undergraduate student fails to attain a 2.00 (C) grade point average in any two consecutive academic sessions, has a cumulative grade point average below 2.00 (C) for two consecutive semesters, or fails to earn higher than a 1.00 (D) grade point average in any one semester, the student is automatically considered to be making unsatisfactory progress toward a degree and is thereby eligible for dismissal.

In addition, a student who fails to meet program-specific academic requirements is considered not to be making satisfactory academic progress toward a degree and may be dismissed. At the time of program orientation, each student receives a copy of the program-specific academic requirements.

Professional Standards A student failing to meet the standards of professional and personal conduct may be recommended for dismissal.

Withdrawal and Readmission A student may be readmitted to the school after withdrawal as follows:

Temporary Withdrawal Students in good standing who voluntarily and temporarily withdraw from a program assume temporary inactive status with the School of Allied Health Sciences. At the time of departure, it is the student's responsibility to arrange in writing a continuation agreement with the individual program director. The student is allowed to re-enroll as specified in the continuation agreement. The student must meet any specific academic/clinical requirements associated with re-enrollment under the continuation agreement. Students failing to re-enroll as specified in the continuation agreement are subject to dismissal from the School of Allied Health Sciences.

Other Withdrawal A student who withdraws without arranging in writing for a continuation agreement with the program director, or fails to enroll in any semester, will not be allowed further enrollments in the school and will be considered as not making satisfactory progress toward a degree. Such students who want to re-enroll must file an application for admission and will be considered as new applicants. New prerequisites and standards must be met. These students may be considered for advanced standing in the program provided the completed work meets the current standards of the program.

Honors

The School of Allied Health Sciences offers the following honors to recognize superior student performances.

Degrees Awarded with Distinction The university recognizes a student's superior performance in course work by awarding the associate or bachelor's degree with one of three levels of distinction: distinction, high distinction, or highest distinction. A student must meet the following criteria to receive a degree awarded with distinction.

1. Baccalaureate and associate degree candidates must rank within the highest 10 percent of their graduating class. The determination of eligibility for graduation with academic distinction will be made by the School of Allied Health Sciences so that candidates will be ranked with classmates who received the same type of degrees (e.g., B.S. in Occupational Therapy, B.S. in Radiologic Science).
2. If the 10 percent determination of any class results in a fractional value, the number will be rounded upward (e.g., a graduating class of 11 would have two individuals eligible for distinction).
3. Calculation of the grade point average for graduation with distinction will be based upon the total number of credit hours completed at Indiana University. A candidate for a baccalaureate degree must have completed a minimum of 60 credit hours at Indiana University; associate degree candidates must have completed at least half of the credit hours required for their degree at Indiana University.
4. No more than 10 percent of the Indiana University credit hours may be eliminated from the grade point average determination by utilization of the mechanisms of Pass/Fail or special credit.

5. A minimum cumulative grade point average of 3.50 must have been achieved.
6. Three levels of distinction will be recognized and determined as follows: 3.50 through 3.74—Distinction; 3.75 through 3.89—High Distinction; 3.90 through 4.00—Highest Distinction.
7. The determination of candidates who will wear honor cords at the May graduation ceremonies should include all academic credit earned at IU including the spring semester prior to commencement.
8. Unique cases and appeals should be forwarded to the dean of the School of Allied Health Sciences or the dean's campus designee for consideration.

Dean's List Each semester, students who excel academically have the privilege of being listed on the School of Allied Health Sciences Dean's List. To be eligible, students must carry 9 or more credit hours. Additionally, associate degree students must earn a semester grade point average of 3.50; baccalaureate degree students must earn a grade point average of 3.70.

Program Awards School of Allied Health Sciences programs offer awards recognizing academic excellence, leadership, career potential, and service. Students should refer to specific programs for descriptions of these awards.

IUPUI Honors Degree

Qualified students at IUPUI may work toward the General Honors Degree, which can be earned at the baccalaureate or associate degree level.

At the baccalaureate level, the student must fulfill both general and departmental requirements. Minimum requirements for an honors degree are 24 hours of honors credit, at least 6 of which are outside the major. A student passing in an honors course will receive credit toward graduation; however, only grades of A or B count for honors credit. There is a grade point average requirement of 3.30 overall and 3.50 for honors courses.

At the associate level, students must complete all regular associate degree requirements. In addition, they must complete a minimum of 12 credit hours in honors work of which no more than 3 may be in skills courses. In their required courses, they must include 3 credit hours (usually honors courses) outside the department or school in which they are majoring. Students must earn a grade point average of 3.30 overall and 3.50 for honors work.

Students in the School of Allied Health Sciences who would like to pursue courses under the IUPUI Honors Program should consult with program faculty regarding the availability of such courses within the particular program of interest.

Student Rights and Responsibilities

Application to and enrollment in the university constitute the student's commitment to honor and abide by the practices and policies stated in the university's official announcements, bulletins, handbooks, and other published materials and to behave in a manner that is mature and compatible with the university's function as an institution of

higher learning. The *Indiana University Code of Student Rights, Responsibilities, and Conduct* is available in electronic format. Students are expected to read this document and, by their enrollment, agree to its contents and additional School of Allied Health Sciences statements, which appear below.

Academic Advising A professional advisor is available to assist students who are working on the prerequisites for a professional program. Once admitted to a professional program, students are advised by faculty within the program. It is the student's responsibility to seek counseling and guidance. *The student is responsible for planning a program to meet degree requirements.*

Appeals The School of Allied Health Sciences abides by the appeals procedures discussed in the *Indiana University Code of Student Rights, Responsibilities, and Conduct*. Students may obtain a copy of the school's Appeals Policy and Procedure from any of the school's administrative offices.

Attendance Students are responsible for complying with all attendance requirements that may be established by the school faculty.

Cheating and Plagiarism Faculty and students have rights and responsibilities for learning, teaching, and scholarship within the entire university community. Academic functions are characterized by reasoned discourse, intellectual honesty, mutual respect, and openness to constructive change. Individuals must remain active in avoiding violation of academic ethics.

Cheating Dishonesty of any kind with respect to examinations, course assignments, alteration of records, or illegal possession of examination questions shall be considered cheating.

It is the responsibility of the student not only to abstain from cheating but, in addition, to guard against making it possible for others to cheat. Any student who helps another student to cheat is as guilty of cheating as the student assisted. Students should also do everything possible to induce respect for the examination process and for honesty in the performance of assigned tasks in or out of class.

Plagiarism Honesty requires that any ideas or materials taken from another source for either written or oral use must be fully acknowledged. Offering the work of someone else as one's own is plagiarism. The language or ideas thus taken from another may range from isolated formulas, sentences, or paragraphs to entire articles copied from books, periodicals, speeches, or the writings of other students. The offering of materials assembled or collected by others in the form of projects or collections without acknowledgment also is considered plagiarism. Any student who fails to give credit for ideas or materials that are taken from another source is guilty of plagiarism.

Clinical Affiliations Clinical affiliations (fieldwork experiences) are required in most School of Allied Health Sciences programs. The program faculty is responsible for the selection, approval, and assignment of clinical experiences. Although individual student needs and desires will be recognized, the final placement decisions are made

by the program faculty. Students are responsible for transportation, fees, and self-support, and for following the rules and regulations of the center(s) to which they are assigned. In addition, student conduct must be consistent with the standards of the university and the profession.

Confidentiality of Records Indiana University, in compliance with the General Education Provisions Act, Section 438, titled Family Educational Rights and Privacy Act, provides that all of a student's records are confidential and available only to that student and to the parents if the student is under 21 and dependent as defined by IRS standards. The student may review the record upon request and may ask for deletions or corrections of the record in a hearing process described in detail in the *Indiana University Code of Student Rights, Responsibilities, and Conduct*. References, recommendations, and other similar documents may carry a voluntary waiver relinquishing the student's right to review this specific material. The student may also release the record to others by signing a written release available in the offices that maintain records. Further details regarding the provisions of the Privacy Act and a list of offices where student records are kept may be found in the *Indiana University Code of Student Rights, Responsibilities, and Conduct*.

Degree Applications Each fall, students preparing to graduate during the following calendar year must file an intent-to-graduate form in the office of the program in which they are enrolled. Program faculty then certify the student's satisfactory completion of degree requirements. If changes in the anticipated date of degree completion occur, students must consult their faculty advisor and file an updated intent-to-graduate form.

Financial Aid A student may seek financial assistance through the financial aid office on the campus of interest. In addition, assistance may be available through the School of Allied Health Sciences Student Affairs Committee, professional associations, and other external groups and agencies.

Costs Students are responsible for the following costs:

Fees and Tuition Fees and tuition are established annually by the Trustees of Indiana University.

Books and Supplies Books and supplies are determined by the program.

Uniforms During clinical/fieldwork experiences, students must adhere to the dress code requirements of the program and training site. Students are responsible for providing their own uniforms.

Transportation Students are responsible for travel and lodging costs associated with clinical/fieldwork experiences.

While tuition, fees, and other related expenses change each year, the estimated cost associated with matriculating in one of the undergraduate professional programs for the 2001-2002 academic year ranged from \$5,000 to \$12,500. Contact the program of interest for a current cost sheet.

Liability Insurance All students participating in required fieldwork experience are covered by the

university's medical malpractice insurance. When requested, students may be required to purchase and show proof of general liability insurance prior to being certified to begin the clinical experience.

Health Before the beginning of the professional program, students are required to demonstrate proof of immunization for tetanus and diphtheria, rubella, rubeola (measles), mumps, varicella (chicken pox), and hepatitis. All students must have a PPD tuberculin skin test within the last three months. Students may be required to complete a physical examination (see program specific requirements). All students must show proof of health insurance before beginning the professional program.

International Students Foreign nationals enrolled in the school are subject to the same rights and responsibilities as all other students. International students should consult the office for international students on the campus of interest. A processing fee may be charged to entering students.

Orientation School of Allied Health Sciences programs require students to attend orientation programs prior to the beginning of the professional courses. Students are responsible for attending these sessions and for the program-specific policies and standards distributed and discussed at the sessions.

Professional Conduct Students are responsible for exhibiting conduct appropriate to their professional training and education. Each program distributes standards and policies of appropriate professional conduct at the time of program orientation.

Registration and Record Changes It is the student's responsibility to enroll in each required academic session and satisfactorily complete all courses required for the degree. Faculty are available to provide academic advising.

Students are responsible for filing the necessary Student Record Change form with the School of Allied Health Sciences Office of Academic and Student Affairs in Coleman Hall 120 as soon as possible following a change of name or permanent address. Additional information regarding degree requirements and academic standards may be found elsewhere in this bulletin.

Credentials/Licensure

Students completing any of the professional programs are qualified to sit for the appropriate licensure and/or credentialing examinations. Contact the program director for further information.

Allied Health Alumni Association

The Allied Health Alumni Association, which has an enrollment of more than 700 active members, was officially recognized as a constituent member of the Indiana University Alumni Association in 1976. Active membership is open to all graduates of the School of Allied Health Sciences programs.

For more information, contact the Indiana University Alumni Association, School of Allied Health Sciences Alumni Association, University Place Conference Center, room 241, 850 W. Michigan Street, Indianapolis, IN 46202-6044; (317) 274-8828.

Academic Programs

Clinical Laboratory Science/Medical Technology

The educational program in clinical laboratory science/medical technology is located on the Indiana University–Purdue University Indianapolis campus, Indiana University Medical Center.

Description of the Profession Clinical laboratory science/medical technology is a diverse, science-oriented profession aimed at accurate performance of clinical laboratory procedures on biologic samples from patients. The results from these procedures are used by physicians in diagnosing and treating diseases. Some of the tasks that clinical laboratory scientists/medical technologists perform are listed below:

- Analysis of simple/complex chemical components of body fluids.
- Evaluation of cellular components of blood.
- Identification of microorganisms and their antibiotic susceptibilities.
- Preparation of blood components for patient therapy.
- Evaluation of new techniques, procedures, and instruments.

These laboratory personnel continually evaluate the quality of the results from procedures and instruments and solve any problems that relate to inconsistencies. Excellent communication skills are required to interact with other members of the health care team, to teach, and to manage individuals under their supervision.

Clinical laboratory scientists/medical technologists typically work in laboratories located in hospitals, clinics, physician group practices, blood centers, medical research facilities, or medically oriented industries.

Graduates of the Program Students who successfully complete the senior/professional year of the clinical laboratory science/medical technology program and have a baccalaureate degree are eligible to take national certification examinations. Nationally recognized certification is a requirement for employment in many settings.

Credentials Required to Practice M.T. (ASCP), Medical Technologist; or C.L.S. (NCA), Clinical Laboratory Scientist.

Licensure Requirements to Practice There is no state licensure in Indiana; however, some states require licensure in addition to or instead of national certification.

Bachelor of Science in Clinical Laboratory Science at Indiana University–Purdue University Indianapolis

Medical Director: Professor Eble

Program Director: Associate Professor Kasper

Professors: Allen, Davis, Glick, Leland, Ryder

Associate Professors: Baenziger, Marler, Rodak

EDUCATIONAL PROGRAM

Length of Program Clinical laboratory science is a four-year baccalaureate degree program that is typically full-time days; however, some part-time day positions are available on the IUPUI campus. The program is structured in a 3 + 1 arrangement in which three years are spent in regular college courses in order to complete prerequisite courses and the fourth year is the senior/professional year. The professional year includes both didactic and supervised clinical experiences.

Additional Cost In addition to regular university fees, the student should expect to pay for program-related expenses. Contact program for current cost sheet.

Description of Program Facilities The Clinical Laboratory Science Program at IUPUI has program offices, a classroom, and a student laboratory located on the fourth floor of Fesler Hall.

Location of Clinicals Facilities utilized for clinical experiences include University Hospital, Riley Hospital, Wishard Memorial Hospital, and Richard Roudebush Veterans Administration Medical Center.

Opportunity for Students to Work Students who must work should limit employment hours to 8-10 hours a week if possible.

Accreditation The Clinical Laboratory Science Program at Indiana University–Purdue University Indianapolis is fully accredited by the National Accrediting Agency for Clinical Laboratory Sciences, 8410 W. Bryn Mawr Avenue, Suite 670, Chicago, IL 60631, phone (773) 714-8880.

ADMISSION

General Information

Students accepted into the program must complete the school's and the following program admission requirements prior to the first day of classes. Admission to the professional program is competitive; therefore, completion of the prerequisites does not guarantee admission to the program.

Criteria Used for Selection of Class Cumulative and science/math grade point average, essay, interview, and motivation.

Class Size 24 students

Specific Requirements

In addition to the School of Allied Health Sciences admission policies and procedures found at the beginning of this section of the bulletin, the following admission policies apply to the Clinical Laboratory Science Program at IUPUI.

Application Deadline December 1 of the year prior to desired entry into the senior/professional year.

Total Number of Prerequisite Credit Hours 90

Distribution of Credit Hours in Specific Areas

Applicants must complete at least 18 credit hours in the biological sciences and 18 credit hours in chemistry. See prerequisites.

Limitations of Course Work Courses in chemistry (upper level), microbiology, and immunology must have been taken within the previous six years.

Minimum Cumulative Grade Point Average 2.50 on a 4.00 scale. This requirement is applied at the time of program application and must be maintained. Grades from remedial courses are not used in this calculation.

Minimum Specific Grade Point Average 2.50 on a 4.00 scale in science and mathematics courses. This requirement is applied at the time of program application and must be maintained. Grades from remedial courses are not used in this calculation.

Minimum Grade in a Stated Prerequisite Course C (2.00 on a 4.00 scale) in all required courses.

Interview Applicants must complete the interview process. Interviews are scheduled between November and January.

Technical Standards See School of Allied Health Sciences policy.

Indiana Residents Preference Policy See School of Allied Health Sciences policy.

Volunteer Experience While volunteer experience is not required, it is very helpful in making a career choice.

CURRICULUM

Prerequisites

Prior to entering the program, students must complete the following minimum prerequisites. Students should consult with their academic advisors for appropriate courses and semester sequence in order to complete prerequisites. Prerequisites may be taken at any accredited college or university. The code "G" indicates a course that meets the school's general-education requirements.

Written Communications (G)	2 courses
Verbal Communications (G)	3 cr.
Humanities (G)	3 cr.
Social-Behavioral Sciences (G)	6 cr.

Biological Sciences Applicant must complete, by entry date, at least 18 credit hours or the equivalent of biology, to include the following courses:

Introductory Biology (G)
Microbiology (with lab)
Genetics
Human Physiology
Immunology

Chemistry Applicant must complete, by entry date, at least 18 credit hours or the equivalent of chemistry, to include the following courses:

Qualitative (with lab) (G)
Quantitative (with lab)

Organic I (with lab)
Advanced Chemistry Elective
(*Suggested Chemistry Electives:* Organic II, Biochemistry, Analytical Chemistry, or Clinical Chemistry)

Mathematics Applicant must complete, by entry date, the following courses:

Mathematics (Algebra and Trigonometry or higher) (G)
Statistics

Suggested Electives

While not inclusive or mandatory, the following is a list of suggested elective areas: human anatomy, introduction to computers, medical terminology, and medical microbiology.

Suggested Plan of Study

The following is a suggested three-year plan of the prerequisites. Changes in this schedule can be made. Students should check with their advisors to make sure all of the requirements are met.

Freshman

<i>Fall</i>	
Elementary Composition I	3 cr.
Algebra and Trigonometry	3 cr.
Biology—Plants	5 cr.
Principles of Chemistry I (with lab)	5 cr.
Total	16 cr.

Spring

Speech Communications or Interpersonal Communication	3 cr.
Algebra and Trigonometry	3 cr.
Biology—Animals	5 cr.
Principles of Chemistry II (with lab)	5 cr.
Total	16 cr.

Sophomore

<i>Fall</i>	
Organic Chemistry	3 cr.
Organic Chemistry Lab	2 cr.
Human Physiology	5 cr.
Electives	6 cr.
Total	16 cr.

Spring

Microbiology (with lab)	3-4 cr.
Chemistry Elective	3 cr.
Sociology	3 cr.
Humanities Elective	3 cr.
Elective	3 cr.
Total	15-16 cr.

Junior

<i>Fall</i>	
Immunology	3 cr.
Genetics	3 cr.
Electives	6 cr.
Total	12 cr.

Spring

Statistics	3 cr.
Psychology	3 cr.
Electives	6 cr.
Written Communication	3 cr.
Total	15 cr.

Professional Program

Courses in the professional program are sequential and must be taken in the order specified by the program faculty.

Fall

Urine Analysis AHLT C410	2 cr.
Diagnostic Medical Microbiology AHLT C411	4 cr.
Diagnostic Microbiology Laboratory AHLT C421	2 cr.
Serology AHLT C409	1 cr.
Serology Laboratory AHLT C429	1 cr.
Principles of Immunohematology AHLT C408	1 cr.
Techniques in Immunohematology AHLT C428	1 cr.
Hematology AHLT C407	3 cr.
Hematologic Techniques and Procedures AHLT C427	3 cr.
Total	18 cr.

Spring

Clinical Chemistry AHLT C406	4 cr.
Clinical Chemistry Instrumentation and Methodologies AHLT C426	2 cr.
Mycology/Parasitology AHLT C420	2 cr.
Hemostasis AHLT C404	1 cr.
Hemostasis Techniques AHLT C424	1 cr.
General Externship I AHLT C401	2 cr.
General Externship II AHLT C402	2 cr.
Total	14 cr.

Summer Session I

General Externship III AHLT C403	2 cr.
General Externship IV AHLT C405	2 cr.
Topics in Medical Technology AHLT C412	3 cr.
Total	7 cr.

Scholarships A limited number of scholarships are available for accepted students. Contact the program when notified of admission.

Awards Based on academic performance, the program faculty will recommend students for degrees awarded with distinction in accordance with the school's honors criteria. The program recognizes one superior student meeting specific academic performance criteria for the senior/clinical year with the Clinical Laboratory Science Academic Achievement Award.

For further information, contact Professor Linda Kasper, Director of the Clinical Laboratory Science Program, IUPUI, Fesler Hall 409, 1120 South Drive, Indianapolis, IN 46202-5113; (317) 274-1264; Fax: (317) 278-0643; E-mail: lmkasper@iupui.edu.

Courses in Clinical Laboratory Science/Medical Technology

"P" refers to a course prerequisite and "C" to a course that must be taken concurrently.

AHLT C401 General Externship I (2 cr.)
Supervised clinical experience in clinical chemistry. Student rotates through various areas of clinical chemistry.

AHLT C402 General Externship II (2 cr.)
Supervised clinical experience in clinical hematology.

Student rotates through various areas of clinical hematology and coagulation.

AHLT C403 General Externship III (2 cr.)

Supervised clinical experience in clinical microbiology. Student rotates through various areas of microbiology, serology, virology, and parasitology.

AHLT C404 Hemostasis (1 cr.) Hemostasis is a course covering the basic principles of the hemostasis mechanism, including an overview of the laboratory techniques used to evaluate disorders of hemostasis. Emphasizes the major components of hemostasis, interaction of these components, and laboratory evaluation of the major hemostatic disorders.

AHLT C405 General Externship IV (2 cr.)

Supervised clinical experience in blood banking. Student rotates through various areas of modern blood bank, including donor room, transfusion service, antibody identification, component therapy, transplantation therapy, and quality control.

AHLT C406 Clinical Chemistry (4 cr.) Emphasis on metabolic processes that maintain chemical homeostasis in humans, the application of clinical chemistry assay values in evaluating the integrity of these processes, and the correlation of abnormal results with metabolic dysfunction and/or disease states.

AHLT C407 Hematology (3 cr.) Study of functions, maturation, and morphology of blood cells in addition to factors regulating production, metabolism, and kinetics of blood cells. The etiologic and morphologic classifications of blood disorders and diseases; correlations with bone marrows and cytochemistries. Study of cellular contents of other body fluids.

AHLT C408 Principles of Immunohematology (1 cr.)

Emphasis on major blood group antigens and antibodies including their role in transfusion medicine. Current practices in blood donation, apheresis, and quality control are also covered.

AHLT C409 Serology (1 cr.) Lectures describing and comparing all pertinent serologic procedures utilized in diagnosis of rheumatoid arthritis, rubella, streptococcal disease, syphilis, various febrile conditions, fungal infections, parasite infections, and infectious mononucleosis. Selected lectures in viral culturing methods.

AHLT C410 Urine Analysis (2 cr.) Routine urine examination and special tests; laboratory and special lectures.

AHLT C411 Diagnostic Medical Microbiology (4 cr.)

An in-depth study of the clinically significant microorganisms with special emphasis on their clinical significance, cultural and biochemical characteristics, and susceptibility testing patterns.

AHLT C412 Topics in Medical Technology (3 cr.)

Selected topics in medical technology covered by lecture and clinical experience.

AHLT C420 Mycology/Parasitology (2 cr.)

Lecture and laboratory experience covering clinically significant fungi and parasites. Clinical manifestations, collection and procedures for processing of

specimens, and identification techniques will be employed.

AHLT C421 Diagnostic Microbiology Laboratory (2 cr.)

Laboratory experience in the performance of skills and procedures needed for the isolation, identification, and susceptibility testing of clinically significant microorganisms.

AHLT C424 Hemostasis Techniques (1 cr.)

Laboratory course emphasizing the major screening and definitive test for the evaluation of normal and abnormal hemostasis. Tests will include evaluation of platelets, blood vessels, coagulation, and fibrinolysis.

AHLT C426 Clinical Chemistry Instrumentation and Methodologies (2 cr.)

Emphasis is on utilization of basic and intermediate methodologies and instrumentation and their application to assaying a variety of body constituents in a clinical chemistry laboratory.

AHLT C427 Hematologic Techniques and Procedures (3 cr.)

Experience in blood cell identification on stained smears; blood cell, platelet, and reticulocyte counting procedures. Techniques of sedimentation rates, hematocrits, corpuscular indices, hemoglobin determination, and smear preparation staining. Introduction to instrumentation and quality control. Special procedures including bone marrow preparations, flow cytometry, and automated differential counters.

AHLT C428 Techniques in Immunohematology (1 cr.)

Emphasis on laboratory techniques used in blood banks, including blood typing, crossmatching, antibody identification, record keeping, and quality control.

AHLT C429 Serology Laboratory (1 cr.)

Laboratory experience in performance of various testing procedures utilized in serologic diagnosis of infectious diseases and various syndromes.

Techniques include precipitation, flocculation, and various hemagglutination and hemagglutination inhibition techniques, fluorescent antibody testing, and complement fixation.

AHLT C413 Clinical Correlation and Theory (2 cr.)

Lectures in theoretical and clinical areas designed to emphasize the relationship between laboratory tests and disease states.

AHLT C431 Hematology I (2 cr.)

Collecting, staining, and counting blood cells; supervised experience with patients. Experience with specimens of spinal fluid, special determinations (platelets, reticulocytes), and pathologic smears.

AHLT C432 Hematology II (2 cr.)

C431, C432, and C434 offer more experience than C431 allows in the same techniques and offer additional techniques such as sedimentation rate, hematocrit, and the figuring of indices.

AHLT C434 Hematology III (2 cr.)

C431, C432, C433. Continuation of practice and experience in hematologic techniques. Individual projects assigned if student is sufficiently advanced.

AHLT C440 Bacteriology I (2 cr.)

Diagnostic procedures as means to familiarize student with techniques; work on specimens received from hospital patients under supervision; practical

experience with all types of human specimens for bacteriologic and mycologic study.

AHLT C441 Bacteriology II (2 cr.)

* P: C440. Agglutination and precipitin techniques and their special application to agglutination titers and the use of antibiotics. Special assignments to provide experience with organisms infrequently encountered.

AHLT C442 Bacteriology III (2 cr.)

* P: C440, C441. At the end of this course, student should be able to handle usual and somewhat unusual hospital bacteriologic and mycologic problems independently.

AHLT C450 Serology I (2 cr.)

* Introduction to serologic and immunologic principles.

AHLT C451 Serology II (2 cr.)

* P: C450. Additional experience (for students with satisfactory proficiency in C450) in adapting complement fixation, agglutination, hemagglutination, precipitin, and flocculation techniques to diagnostic procedures.

AHLT C471 Clinical Chemistry I (2 cr.)

* Training and experience with more frequently used chemistry tests, e.g., determination of glucose and urea nitrogen; automated and manual methods.

AHLT C472 Clinical Chemistry II (2 cr.)

* P: C471. Limited experience with less frequently performed special procedures.

AHLT C473 Clinical Chemistry III (2 cr.)

* P: C471 and C472. Special equipment utilization; preparation and maintenance of solutions.

AHLT C476 Chemistry IV (2 cr.)

* P: C471, C472. Advanced procedures, method developments, special projects.

AHLT C477 Chemistry V (2 cr.)

* P: C471, C472. Training and experience in special technical and methodological microprocedures.

AHLT C491 Blood Bank I (2 cr.) * Review of serologic principles and technical fundamentals of transfusion practice; comprehensive consideration of blood groups and Rh factors, extensive practice with pretransfusion techniques and safety practices. Other blood types, antigen-antibody relationships with techniques for demonstrating them. Elementary knowledge of genetics is helpful.

AHLT C492 Blood Bank II (2 cr.)

* P: C491. Transfusion service bloods provide problem cases in isoimmunization and sensitization, Rh titration, etc. Responsibility for blood bank operation and application to special transfusion problems placed before the student.

AHLT C493 Blood Bank III (2 cr.)

* P: C491, C492. Required for students working toward special certificate in blood banking. Emphasis on supervision, reference techniques, and such accessory functions as plasma production.

*This medical technology course is offered intermittently and is NOT part of the standard curriculum.

Cytotechnology

An educational program in cytotechnology is located on the Indiana University–Purdue University Indianapolis campus.

Description of the Profession Cytotechnology is a medical laboratory specialty in which microscopic studies of exfoliated, abraded, and aspirated cells from the human body are performed. The cytotechnologist studies cell samples from various body sites to detect cellular changes indicative of cancer. In providing a means of early detection, cytology makes possible the early diagnosis of cancer, thus increasing the chances of a cure. Cytology also serves as a prognostic tool during the course of cancer treatment programs. In addition, it aids in establishing the diagnosis of benign disease processes, such as endocrine disorders, and in detecting some pathogenic microorganisms.

Graduates of the Program The Cytotechnology Program is designed to provide its graduates a comprehensive, fundamental knowledge of clinical cytology that will enable them to function as competent cytotechnologists and will provide a basis for continuing education and professional growth. Graduates will be eligible for the certification examination administered by the Board of Registry leading to certification and registration in cytotechnology with the American Society of Clinical Pathologists. Graduates should be prepared for management, supervisory, and educational responsibilities and should seek ways to contribute to the growing body of knowledge in clinical cytology. The program is designed to prepare graduates to realize their position in the total health care structure and understand their legal, ethical, and moral responsibilities to the employers and communities they serve. Cytotechnologists normally practice in hospitals, laboratories, or research laboratories.

Credential Required to Practice B.S.; CT(ASCP), cytotechnology certification by American Society of Clinical Pathologists.

Licensure Requirements to Practice No license is required to practice in Indiana.

Bachelor of Science in Cytotechnology at Indiana University–Purdue University Indianapolis

Medical Director: Associate Professor Cramer

Program Director: Associate Professor Crabtree

Clinical Assistant Professor: Frain

EDUCATIONAL PROGRAM

Length of the Program Four years, including three years (90 semester hours) of prerequisite course work plus 11 months (37 semester hours) of professional course work.

Structure of the Program The prerequisites may be taken on a part-time basis; the professional program is presented in a full-time, day format only.

Design of the Professional Curriculum An integral relationship between the program and the cytology service laboratory provides students with maximum exposure to a functioning cytology laboratory. The learning process follows a structured, logical sequence for the presentation of essential concepts and skills.

Individual instruction, demonstrations, lectures, and conferences are all utilized as methods of instruction.

Student inquiry and research that will foster greater understanding and possible revision of presented material are encouraged. Opportunity is provided for the student to pursue special interests in the field of cytology.

Location of Clinicals All clinical sites for the program are located within the Indianapolis area.

Additional Cost In addition to regular university fees, the student should expect to pay for program-related expenses. Contact program for current cost sheet.

Opportunity for Students to Work Some students have part-time jobs.

Program Facilities The Cytotechnology Program is offered at the IUPUI campus, which has modern educational and medical facilities. Classroom facilities and faculty offices are located in the Medical Sciences Building B029. The combined student and cytology service laboratory is located on the third floor of Indiana University Hospital. Cytology laboratories located in Wishard Memorial Hospital, Methodist Hospital, and the Veterans Administration Hospital are also utilized.

Accreditation The curriculum of the Cytotechnology Program is fully accredited by the Commission on Accreditation of Allied Health Education Programs.

ADMISSION General Information

As grade point average is a reflection of self-motivation, self-discipline, and the desire to achieve, favorable consideration is given to applicants with high grade point averages. In addition, proficiency must be demonstrated in biological and physical sciences. Candidates for this program should work well with others, have a genuine desire to improve the health of humanity, and be willing to accept the responsibilities of providing health care service. Students accepted into the program must complete the school's and the following program admission requirements prior to the first day of classes. Admission to the professional program is competitive; therefore, completion of the prerequisites does not guarantee admission to the program.

Criteria Used for Selection of Class Cumulative grade point average, biology grade point average, interview.

Class Size Eight each fall semester.

Specific Requirements

In addition to the School of Allied Health Sciences admission policies and procedures found at the beginning of this section of the bulletin, the following admission policies apply to the Cytotechnology Program.

Application Deadline December 1 of the year prior to anticipated entry.

Total Number of Prerequisite Credit Hours 90

Distribution of Credits in Specific Areas 25 credit hours in biology.

Limitations of Course Work Biology credits earned more than seven years prior to application

must be updated by taking 3 additional credit hours related to cell biology within a period of time not to exceed 12 months prior to admission. Remedial courses will not fulfill prerequisite hours.

Minimum Cumulative Grade Point Average 2.50 on a 4.00 scale. This requirement is applied at the time of program application and must be maintained.

Minimum Specific Grade Point Average Biology grade point average of 2.50 on a 4.00 scale. This requirement is applied at the time of program application and must be maintained.

Minimum Grade Requirement in a Stated Prerequisite Course C (2.00 on a 4.00 scale).

Interview All qualified applicants must participate in an interview. Interviews are conducted the second week of January.

Technical Standards See School of Allied Health Sciences policy.

Medical Requirements Students accepted into the professional program must complete a health form, immunization card, chest X-ray, and eye examination before classes begin.

Indiana Residents Preference Policy See School of Allied Health Sciences policy.

Volunteer Experience While volunteer experience is not required, it is very helpful in making a career choice.

CURRICULUM Prerequisites

Prior to entering the program, the student must complete the following minimum prerequisites. Students should consult with their academic advisors for appropriate courses and semester sequence in order to complete prerequisites. Prerequisites may be taken at any accredited college or university. The code "G" indicates a course that meets the school's general-education requirements. Courses taken via correspondence will not be accepted as fulfilling stated prerequisites. No more than 15 semester hours of correspondence course work will be counted toward the degree.

Written Communications (G)	2 courses
Verbal Communications (G)	3 cr.
Humanities (G)	3 cr.
College Algebra (G)	3 cr.
Introductory Biology (G)	4-5 cr.
Social-Behavioral Science (G)	6 cr.
Chemistry I (with lab) for science majors (G)	4-5 cr.
Chemistry—sequential course(s) (for science major beyond above) (4 cr. minimum; 5-8 cr. preferred)	
Human Anatomy-Physiology	5-10 cr.

Advanced Science In addition to the courses listed above, students must also take upper-level biology courses to total a minimum of 25 credit hours including Human Anatomy-Physiology. Recommended courses include microbiology with laboratory, developmental anatomy or embryology with laboratory, genetics with laboratory, molecular or cellular biology, histology, and immunology.

Questions regarding alternative biology courses should be directed to the Cytotechnology Program faculty.

Suggested Electives

It is recommended that the following courses be taken as electives: microbiology, embryology, genetics, animal cell physiology, and immunology. While not inclusive or mandatory, the following is a list of suggested elective areas: medical microbiology, endocrinology, parasitology, virology, cytogenetics, computer science, management, organic chemistry, biochemistry, physics, advanced mathematics, and statistics.

A Suggested Plan of Study

The following is a suggested three-year plan of prerequisites.

Freshman

Fall

Elementary Composition I	3 cr.
Algebra and Trigonometry.	3 cr.
Biology—Plants	5 cr.
Elementary Chemistry I or Principles of Chemistry I	<u>5 cr.</u>
Total	16 cr.

Spring

Speech Communication or Interpersonal Communication	3 cr.
Biology—Animals	5 cr.
Elementary Chemistry II	5 cr.
Electives	<u>3 cr.</u>
Total	16 cr.

Sophomore

Fall

Humanities Elective	3 cr.
Beginning Psychology or higher	3 cr.
Human Anatomy	5 cr.
Electives	<u>6 cr.</u>
Total	17 cr.

Spring

Elementary Composition II or Professional Writing	3 cr.
Biology Elective	3 cr.
Biology Elective	4 cr.
Sociology	<u>3 cr.</u>
Total	13 cr.

Junior

Fall

Human Physiology	5 cr.
Electives	<u>9 cr.</u>
Total	14 cr.

Spring

Biology Elective	3 cr.
Electives	<u>12 cr.</u>
Total	15 cr.

Professional Program

Courses in the professional program are sequential and, therefore, must be taken in the order specified by the program faculty.

Senior

Fall

Gynecologic Cytology, Normal AHLT A412	3 cr.
Gynecologic Cytology, Abnormal AHLT A422	3 cr.
Techniques in Medical Cytology AHLT A462	2 cr.
Seminar in Cytology AHLT A470	2 cr.
Medical Care I AHLT W374	3 cr.
Pulmonary Cytology AHLT A432	<u>3 cr.</u>
Total	16 cr.

Spring

Cytology of Body Fluids AHLT A442	2 cr.
Urinary Tract Cytology AHLT A454	2 cr.
Seminar in Cytology AHLT A470	2 cr.
Medical Care II AHLT W471	3 cr.
Cytology of the Gastrointestinal Tract AHLT A453	2 cr.
Certification Internship AHLT A465	<u>3 cr.</u>
Total	14 cr.

Summer

Investigations in Cytopathology AHLT A490	2 cr.
Cytology of Fine Needle Aspiration AHLT A455	2 cr.
Certification Internship AHLT A465	<u>3 cr.</u>
Total	7 cr.

Scholarships Students interested in scholarship information for the professional year should contact the program office.

Awards Recommendations for degrees awarded with distinction are based upon superior academic performance. The Cytotechnology Program recognizes superior academic and professional conduct with the Liang-Che Tao Outstanding Student Award, which is awarded to a graduating senior.

Graduation Requirements Satisfactory completion of 126 credit hours to include 90 credit hours of prerequisite and general-education courses and 37 credit hours of professional courses. All course work must be completed in compliance with the program's and school's academic and professional policies.

For further information, contact Professor William Crabtree, Director, Cytotechnology Program, IUPUI, Corporate Square West, 5610 Crawfordville Road, Building 24, Suite 2401, Speedway, IN 46224, (317) 481-6746, E-mail: wcrabtre@iupui.edu or www.pathology.iupui.edu.

Courses in Cytotechnology

"P" refers to a course prerequisite and "C" to a course that must be taken concurrently.

AHLT A412 Gynecologic Cytology, Normal (3 cr.) Detailed microscopic study of normal squamous, endocervical, and endometrial epithelial cells, as well as other non-epithelial cells. Cellular changes seen with microbiological infections, repair, inflammation, degeneration, artifact, and vitamin deficiency status.

AHLT A422 Gynecologic Cytology, Abnormal (3 cr.) Histopathology and cytopathology of lesions of the female genital tract. Detailed studies in the cytologic diagnosis of dysplasia, carcinoma in situ, and invasive cancer of this anatomic area. Differential diagnosis of these lesions includes the severity, site of origin, and grade where appropriate.

AHLT A432 Pulmonary Cytology (3 cr.)

Systematic study of normal, nonmalignant, and malignant cells in the lower respiratory system.

AHLT A442 Cytology of Body Fluids (2 cr.)

Cytology of the eye, central nervous system, synovial membranes, and serosal cavities in fluids associated with nonmalignant and malignant disease processes.

AHLT A453 Cytology of the Gastrointestinal Tract (2 cr.)

Study of cells associated with nonmalignant and malignant diseases of the gastrointestinal tract, including the oral cavity, esophagus, stomach, and small and large intestines.

AHLT A454 Urinary Tract Cytology (2 cr.)

Clinical cytologic study of cells from normal, nonmalignant, and malignant diseases of the urinary tract, to include the urethra, ureters, renal pelvis, bladder, prostate, seminal vesicles, and kidney.

AHLT A455 Cytology of Fine Needle Aspiration (2 cr.)

The study of nonmalignant and malignant cells aspirated from lung, thyroid, salivary glands, breast, liver, prostate, lymph nodes, soft tissue masses, and miscellaneous organs; and the study of fine needle aspiration techniques.

AHLT A462 Techniques in Medical Cytology (2 cr.)

Fixation and staining procedures, preparation of smears and cell blocks from fluids and other exfoliates; use of filter techniques and microscopy.

AHLT A465 Certification Internship (3 cr.)

Includes six months of clinical internships. Students gain further practical experience by working with routine cytology material. Conferences and lectures are used to provide additional experience.

AHLT A470 Seminar in Cytology (2 cr.) Review of current literature pertaining to diagnostic cytology. Reports and discussions by students and faculty.

AHLT A490 Investigations in Cytopathology (1-3 cr.)

P: A470. To provide the student with an experience in the realm of scientific investigation related to cytopathology. The investigation may be conducted as a research project or a literature review.

Emergency Medical Services

Educational Program An educational program in Emergency Medical Technician-Basic and Paramedic Science is located on the Indiana University-Purdue University Indianapolis campus.

Description of the Profession Emergency Medical Technicians (EMTs)—Basic and Paramedic—care for people at the scene of emergencies and transport them to hospitals or other health care institutions. EMTs (basic and paramedic) determine the nature and the extent of victims' medical and trauma-related emergencies and provide

initial emergency care. EMT-Paramedics administer medications, supply intravenous therapy, perform heart monitoring, and provide other life-saving interventions for the victims of acute illness or injury. The EMT-Basic is the entry level of the emergency medical field. The EMT-Paramedic is the advanced practitioner with more independence.

Graduates of the Program The EMT-Basic and the Associate of Science in Paramedic Science degree programs are designed to prepare the EMT to deliver emergency patient care in the prehospital setting. Graduates of both programs primarily provide emergency care in ambulance or fire services at their level of training. Nontraditional areas of employment are available in hospitals and industry.

Credential Required to Practice

EMT-B, Emergency Medical Technician—Basic
EMT-P, Emergency Medical Technician—Paramedic.

Licensure Required to Practice Graduates of either program must successfully challenge a state-administered certification examination prior to credentialing. The certification examination may vary from state to state. The EMT-Basic exam in Indiana is the written and skill exam from the Indiana Public Safety Training Institute. The Paramedic exam in Indiana is the written and skill exam for the National Registry of EMT-Ps.

Emergency Medical Technician-Basic at Indiana University-Purdue University Indianapolis

Medical Director: Professor McGrath

Acting Program Director: Clinical Assistant Professor Bell

Faculty: Clinical Assistant Professor Hallam

Adjunct Faculty: Ervin, Abram, Jerin, Hutchinson

EDUCATIONAL PROGRAM

Length of Program Two semesters, which may be taken in the same or back-to-back semesters. A new course begins each fall semester.

Additional Costs Students are encouraged to purchase their own stethoscope.

ADMISSIONS

General Information Students accepted into the program must complete the school and program admission requirements prior to the first day of classes.

Prerequisites Current credential in CPR.

Proposed Class Size 24 each fall semester.

Technical Standards See School of Allied Health technical standards.

CURRICULUM

Prerequisites Current credential in health care provider-level CPR.

Fall

EMTB-II AHIL E202 3 cr.

Spring

EMTB-I AHIL E201 3 cr.
EMTB-II AHIL E202 3 cr.

Students may take EMTB-II AHIL E202 in either the fall or spring semester.

Courses in Emergency Medical Services

AHIL E201 Emergency Medical Technician

Basic I (3 cr.) This course focuses on well-being of the EMT, basic patient assessment and airway management, and special considerations for the pediatric and geriatric patient.

AHIL E202 Emergency Medical Technician

Basic II (3 cr.) The content of the course covers specific medical emergencies, trauma, and basic pharmacology.

Associate of Science in Paramedic Science at Indiana University-Purdue University Indianapolis

Medical Director: Professor McGrath

Acting Program Director: Clinical Assistant Professor Bell

Faculty: Clinical Assistant Professor Hallam

Adjunct Faculty: Ervin, Abram, Jerin, Hutchinson

EDUCATIONAL PROGRAM

Length of the Program Two years; one year (29 credit hours) of prerequisite work plus 12 months of professional course work.

Structure of the Professional Program The prerequisites may be taken on a part-time basis; the professional program is a full-time program conducted primarily during the day. Clinical activities occur during the evening or on weekends.

Design of the Professional Curriculum The curriculum is a competency-based education program of clinical, didactic, and practical instruction integrated with a field internship in advanced emergency care and services.

This program will serve students seeking careers in emergency medical services. It will serve students entering the program immediately after high school as well as nontraditional students. The majority of students will be nontraditional in that they have begun to pursue a career in the emergency medical services field on a part-time, full-time, or volunteer basis before deciding on a full-time role in emergency medicine as an EMT-P.

The program follows guidelines established by the Committee on Allied Health Education and Accreditation (CAHEA) of the American Medical Association, integrating general-education course work and paramedic science course work leading to an Associate of Science degree. The degree program will build on resources established in the largest and most comprehensive EMT-paramedic program in Indiana, the program at Wishard Hospital. In addition to classroom and laboratory facilities located on the Indiana University-Purdue University Indianapolis campus, area health care facilities involved in the

preparation of EMT-paramedics in this program include Wishard Hospital, Wishard Ambulance Service, Avon Fire Department, and Riley Hospital for Children.

Location of Clinicals The primary locations of the clinical rotations are in Indianapolis. A few rotations may be required in central Indiana.

Additional Costs In addition to regular university fees, students will need to purchase a personal stethoscope, EKG caliper, and uniform for the clinical rotation. Contact the program for a current cost sheet.

Opportunity for Students to Work Some students have part-time jobs while completing the professional course work.

Description of Facilities The program offices are located at Wishard Memorial Hospital. The classroom and laboratory are located in the Wayne Township Training Academy. The primary clinical site is at Wishard Ambulance Service. Other clinical sites may be available in central Indiana.

ADMISSIONS

General Information

Students accepted into the program must complete the school's and the program admission requirements prior to the first day of classes. Admission to the professional program is competitive; therefore, completion of the prerequisites does not guarantee admission to the program.

Criteria Used for Selection of Class Grade point average, personal interview, and EMT experience.

Proposed Class Size 10 each fall semester.

Specific Requirements In addition to the School of Allied Health Sciences admission policies and procedures found at the beginning of this section of the bulletin, the following apply to the paramedic science degree program.

Application Deadline December 1 of the year prior to anticipated entry.

Total Number of Prerequisite Credit Hours 29.

Distribution of Credit Hours in Specific Areas See prerequisites.

Limitations of Course Work Remedial courses will not fulfill prerequisites or count as credit hours toward the degree.

Minimum Cumulative Grade Point Average 2.30 on a 4.00 scale. This requirement is applied at the time of program application and must be maintained.

Minimum Grade Requirement in a Stated Prerequisite Course C (2.00 on a 4.00 scale).

Interview All qualified applicants must participate in an interview. Interviews are generally conducted in February.

Technical Standards See School of Allied Health Sciences policy.

Medical Requirements Documentation must include a current immunization record that indicates Hepatitis B immunization.

Indiana Residents Preference Policy See School of Allied Health Sciences policy.

Volunteer Experience While volunteer experience is not required, it is helpful in making a career choice.

CURRICULUM

Prerequisites

In addition to the following prerequisites, each applicant must currently be certified in Indiana as an EMT and have a minimum of 20 hours of patient care activity as an EMT in the patient care area of an ambulance. Students should consult with their academic advisors for appropriate courses and semester sequence in order to complete prerequisites. Prerequisites may be taken at any accredited college or university. The code "G" indicates a course that meets the school's general-education requirements. Correspondence courses will not be accepted for any of the prerequisite course work.

Human Anatomy (G)	5 cr.
Human Physiology (G)	5 cr.
English Composition (G)	3 cr.
Speech (G)	3 cr.
Mathematics (G)	4 cr.
Psychology (G)	3 cr.
Sociology (G)	3 cr.
Computer Technology (G)	3 cr.

Suggested Plan of Study

Freshman

Fall

English Composition (W131)	3 cr.
Human Anatomy (N261) or Human Biology with lab (B212, B213) and Human Biology with lab (B214, B215)	4-5 cr.
Mathematics (M110 or M111)	4 cr.
Sociology (R100)	3 cr.
Total	14-15 cr.

Spring

Speech or Interpersonal Communication (C110 or C180)	3 cr.
Human Physiology (N217)	5 cr.
Psychology (B104 or B105)	3 cr.
Computer Technology (CPT106)	3 cr.
Total	14 cr.

Professional Program

Courses in the professional program are sequential and must be taken in the order specified by the program faculty.

Sophomore

Fall

Emergency Paramedic Pharmacology AHLT E215	3 cr.
Medical Emergencies I AHLT E210	3 cr.
Techniques Laboratory I AHLT E212	2 cr.
Clinical Rotation I AHLT E213	6 cr.
Total	14 cr.

Spring

Pediatrics AHLT E214	3 cr.
Medical Emergencies II AHLT E220	3 cr.
Trauma AHLT E221	3 cr.
Techniques Laboratory II AHLT E222	2 cr.
Clinical Rotation II AHLT E223	5 cr.
Total	16 cr.

Summer I

Clinical Rotation III AHLT E233	5 cr.
Total	5 cr.

Summer II

Clinical Rotation IV AHLT E243	5 cr.
Total	5 cr.

Scholarships Scholarship opportunities may be available through the Office of Scholarships and Financial Aid.

Awards Based on academic performance, the program faculty will recommend students for degrees awarded with distinction in accordance with the school's honors criteria.

Graduation Requirements Satisfactory completion of all prerequisites and 40 credit hours of professional course work. All course work must be completed in compliance with the program's and school's academic and professional policies. All professional courses (AHLT E courses) must be completed within 24 months after beginning the professional program.

For further information, contact Leon Bell, Acting Director, Paramedic Sciences Program, Ott Building 115, Wishard Hospital, 1001 W. 10th Street, Indianapolis, IN 46202, (317) 630-7614, E-mail: lbell1@iupui.edu.

Courses in Emergency Medical Services

"P" refers to a course prerequisite and "C" to a course that must be taken concurrently.

AHLT E210 Medical Emergencies I (3 cr.) C: E212, E213, E215. This course offers an introduction to the role of the paramedic, radio communications, and general patient assessment and a review of body chemistry. The student learns to assess and manage medical emergencies involving the respiratory and cardiovascular systems.

AHLT E212 Techniques Laboratory I (2 cr.) C: E210, E213, E215. This course provides a hands-on setting in which the student will learn how to present reports, conduct patient assessments, and perform various invasive procedures. Also included is the study of electrocardiograms for rhythm interpretation and the techniques of cardiac arrest management.

AHLT E213 Clinical Rotation I (6 cr.) C: E210, E212, E215. Interaction with patients in the hospital and prehospital settings. Assessment and management of the patient with respiratory and cardiovascular disorders. Perform invasive respiratory and intravenous techniques. Deliver radio and written patient reports.

AHLT E214 Pediatrics (3 cr.) P: E210, E215. C:E220, E221, E222, E223. This course focuses on

the care of the sick or injured child. Also included is growth and development of children and emergency prehospital care of the neonate.

AHLT E215 Emergency Paramedic Pharmacology (3 cr.) C: E210, E212, E213. This course focuses on the use of specific emergency medications during life-threatening situations as well as the use of prescribed medications for specific chronic illnesses.

AHLT E220 Medical Emergencies II (3 cr.) P: E210. C: E214, E221, E222, E223. This course prepares the student to assess and manage medical emergencies involving the endocrine, gastrointestinal, neurological, gynecological, and genitourinary systems. Also included are obstetrics, behavioral, and environmental emergencies.

AHLT E221 Trauma (3 cr.) C: E214, E220, E222, E223. This course focuses on the assessment and management of the trauma victim. Also included are rescue techniques, mass casualty and triage principles, and stress management techniques.

AHLT E222 Techniques Laboratory II (2 cr.) P: E212. C: E214, E220, E221, E223. This course provides a hands-on setting in which students will learn how to manage trauma victims. This course includes PHTLS, PALS, and ACLS certification courses.

AHLT E223 Clinical Rotation II (5 cr.) P: E213. C: E214, E220, E221, E222. This course provides students an opportunity to manage the trauma victim and the obstetrical patient in the hospital and prehospital settings.

AHLT E233 Clinical Rotation III (5 cr.) P: E223. This course provides students an opportunity to interact with patients in the hospital and in urban, rural, and private prehospital settings. Students function as team members with the prehospital team.

AHLT E243 Clinical Rotation IV (5 cr.) P: E233. This course provides a clinical setting in which students practice as paramedics in urban, rural, and private ambulance services. Students will be expected to function as the team leaders of the prehospital team.

AHLT E299 Independent Study in Paramedic Science (1-4 cr.) Special topics, projects, or readings for students enrolled in paramedic science.

Health Information Administration/Health Information Technology

The educational program in health information administration is located on the Indiana University-Purdue University Indianapolis campus. Educational programs, to include certificate programs, in health information technology are located on the following Indiana University campuses: Indiana University Northwest, Indiana University Southeast.

A program is being developed at Indiana University Kokomo. For further information, contact Dr. Robert

Roales, Chairperson of the Division of Allied Health Sciences, (765) 455-9371.

Description of the Profession Health information administrators collect, interpret, and protect health data and determine how data are used. They are managers and information specialists who frequently interact with other members of the medical, financial, and administrative staffs. It is their responsibility to ensure that the information system is protected and driven by accurate, up-to-the-minute information. Some examples of the responsibilities of department managers follow:

- Supervise and train clerical and technical personnel.
- Determine health information policies.
- Design health information collection, storage, and report systems.
- Select computer systems for processing and storing clinical data.
- Serve on standards, improvement, and utilization review committees.
- Act as liaison to other departments.
- Determine departmental budget and resource needs.
- Assure that the medical documentation requirements of various accrediting and governmental agencies are met.

Graduates of the Program While many health information administrators are employed in hospitals, others work for insurance companies, nursing homes, psychiatric facilities, computer companies, physician group practices, drug companies, and government agencies. They also coordinate quality management programs for health care facilities, teach in colleges and universities, and perform consulting activities.

The program graduate is eligible to seek registration as a Registered Health Information Administrator (RHIA) by successfully passing a national qualifying examination offered by the American Health Information Management Association. RHIA registration is an important credential when seeking employment as a health information administrator.

Credentials Required to Practice RHIA, Registered Health Information Administrator.

Licensure Requirements to Practice State licensure does not apply.

Bachelor of Science in Health Information Administration at Indiana University-Purdue University Indianapolis

Acting Program Director: Lecturer Forgey

Assistant Professor: Miller

Adjunct Assistant Professors: Gannaway, Hogan, Michau

Adjunct Lecturers: Clearwater, Hurd, Keith, Leeds, Traves, Walker

Clinical Assistant Professor: Welsh

EDUCATIONAL PROGRAM

Length of the Program Four years; 90 semester hours of prerequisite course work plus one year (40 credit hours) of professional course work. The

professional component of the program is offered as the senior year of a Bachelor of Science undergraduate degree. The program begins in the fall semester and ends with summer session I.

Structure of the Program The prerequisites and the professional program may be taken on a part-time or full-time basis. Professional courses are offered primarily during the day.

Design of the Professional Curriculum The professional courses focus on the management of health information systems and utilization of computerized clinical data. The professional component of the curriculum integrates lecture and laboratory courses with technical and professional practice experiences in hospitals and other health care facilities and related settings. A four-week professional practice experience is arranged for each student in summer session I.

Opportunity for Students to Work Because the class schedule for full-time students in the professional program is rigorous, it is difficult to pursue full-time employment. Some students have part-time or weekend jobs.

Additional Cost In addition to regular university tuition and fees, students should expect to pay program-related expenses. Contact the program for a current cost sheet.

Program Facilities The Health Information Administration Program is offered at the Indiana University Medical Center, which has modern educational and medical facilities. The program offices and most classrooms are located in Coleman Hall. Classes also meet in other Medical Center buildings. Professional practice is provided by health care facilities and agencies in Indiana and surrounding states.

Accreditation The Health Information Administration Program is accredited by the Commission on Accreditation of Allied Health Education Programs.

ADMISSION

General Information

Students accepted into the program must complete the school's and the following program admission requirements prior to the first day of classes. Admission to the professional program is competitive; therefore, completion of the prerequisites does not guarantee admission to the program.

Criteria Used for Selection of Class Grade point average, interview, and school's residency policy.

Class Size 20 each fall semester.

Specific Requirements

In addition to the School of Allied Health Sciences admission policies and procedures found at the beginning of this section of the bulletin, the following admission policies apply to the Health Information Administration Program at Indiana University-Purdue University Indianapolis.

Application Deadline November 1 of the year preceding the planned date of entry.

Total Number of Prerequisite Credit Hours 90.

Distribution of Credit Hours in Specific Areas See prerequisites.

Limitations of Course Work Remedial course work will not count toward the 90 required prerequisite credit hours.

Minimum Cumulative Grade Point Average 2.50 on a 4.00 scale. This requirement is applied at the time of program application and must be maintained. Grades for remedial courses are included in the cumulative grade point average.

Minimum Grade Requirement in a Stated Prerequisite Course C (2.00 on a 4.00 scale) in anatomy, physiology, computer science, statistics, business administration, management and behavior in organizations and personnel or supervisory management.

Interview All qualified applicants will be interviewed prior to admission.

Technical Standards See School of Allied Health Sciences policy.

Indiana Residents Preference Policy See School of Allied Health Sciences policy.

Volunteer Experience While volunteer experience is not required, it is very helpful in making a career choice.

CURRICULUM Prerequisites

Prior to entering the program, students must complete the following minimum prerequisites. Students should consult with their academic advisors for appropriate courses and semester sequence in order to complete prerequisites. Prerequisites may be taken at any accredited college or university.

The code "G" indicates a course that meets the school's general-education requirements.

English Composition (G)	3 cr.
Business Communications	3 cr.
Additional Written	
Communication (G)	2-3 cr.
Psychology (G)	3 cr.
Sociology (G)	3 cr.
Speech (G)	3 cr.
Ethics, Biomedical Ethics, or	
Medical Ethics	3 cr.
Humanities (G)	6 cr.
Human Anatomy (with lab) (G)	3-5 cr.
Human Physiology (with lab) (G)	3-5 cr.
Microbiology	3 cr.
Statistics (G)	3 cr.
Introduction to Business	3 cr.
Introduction to Accounting I and II	4-6 cr.
Management and Behavior in	
Organizations	3 cr.
Personnel or Supervisory	
Management	3 cr.
Computer Science/Technology	8 cr.
Business/Commercial Law	3 cr.

Suggested Electives

The following suggestions for electives are made to aid the student in the prerequisite courses and in the professional course work: management information systems, office management, personnel and/or

supervisory management, methods of employee training, health administration, computer sciences, research methods, interpersonal communications, medical terms from Greek and Latin, and foreign languages.

A Suggested Plan of Study

The following is a suggested three-year plan of prerequisites. Variations of this schedule can be made. Students should check with their advisors to make sure all requirements are met.

Freshman

Fall

Elementary Composition I	3 cr.
Humanities Elective	3 cr.
Psychology	3 cr.
Computer Science/Technology	3 cr.
Introduction to Business Administration	<u>3 cr.</u>
Total	15 cr.

Spring

Elementary Composition II or Professional Writing	3 cr.
Sociology	3 cr.
Humanities Elective	3 cr.
Computer Science/Technology	3 cr.
Elective	<u>3 cr.</u>
Total	15 cr.

Sophomore

Fall

Speech	3 cr.
Human Anatomy	5 cr.
Computer Science/Technology	3 cr.
Introduction to Accounting I	<u>1-3 cr.</u>
Total	12-14 cr.

Spring

Microbiology	3-4 cr.
Business Law	3 cr.
Business Communications or Professional Writing	3 cr.
Electives	<u>6-7 cr.</u>
Total	15-17 cr.

Junior

Fall

Human Physiology	5 cr.
Introduction to Accounting II	3 cr.
Personnel Psychology or Supervisory Management	3 cr.
Statistics	3 cr.
Electives	<u>2 cr.</u>
Total	16 cr.

Spring

Ethics	3 cr.
Management and Behavior in Organizations	3 cr.
Electives	<u>9 cr.</u>
Total	15 cr.

Professional Program

Courses in the professional program are sequential and, therefore, must be taken in the order specified

by the program faculty. A minimum grade of C (2.00) is required in each professional course.

Senior

Fall

Medical Record Science I AHLT M411	5 cr.
Directed Practice Experience I AHLT M441	4 cr.
Medical Terminology AHLT M330	3 cr.
Medical Care I AHLT W374	3 cr.
Hospital Organization and Management AHLT M322	2 cr.
Clinical in Medical Record Technology AHLT M357	<u>1 cr.</u>
Total	18 cr.

Spring

Medicine and the Law AHLT M445	2 cr.
Medical Care II AHLT W471	3 cr.
Medical Specialty Lectures AHLT M310	2 cr.
Medical Record Science II AHLT M412	5 cr.
Directed Practice Experience II AHLT M442	<u>6 cr.</u>
Total	18 cr.

Summer Session I

Clinical in Medical Record Administration AHLT M459	<u>4 cr.</u>
Total	4 cr.

Scholarships Four Van Ausdall and Farrar Scholarships are awarded to full-time senior students in the Health Information Administration Program, two in the fall and two in the spring. Awards are predicated on demonstrated financial need and ability to successfully complete the program. Preference is given to students who plan employment in Indiana.

Two Gertrude L. Gunn Memorial Fund Scholarships, established in memory of the founder of the program, are awarded to senior health information administration students. They are based on scholarship and demonstrated financial need.

The Mary L. McKenzie Scholarship is awarded to a senior health information administration student. It is based on scholarship and demonstrated financial need.

The Indiana Health Information Management Association annually awards one scholarship to a senior health information administration student. The criteria for selection include scholastic ability, leadership attributes, professionalism, and potential contribution to the profession.

The Elton T. Ridley Minority Scholarship is awarded to senior health information administration students. The scholarship is awarded to a student who is a member of a class of individuals who are traditionally underrepresented in the program.

The Central Indiana Health Information Management Association awards scholarships to Indiana residents enrolled as senior students in the Health Information Administration Program. They are based on scholarship and membership in the national professional association.

Four Medical Coding Services Scholarships are awarded in memory of Kathy Wilmoth, a graduate of

the Health Information Administration Program. The scholarships are awarded by selection of the Health Information Administration Program Scholarship Committee.

Awards Based on superior performance and in accordance with Indiana University–Purdue University Indianapolis policies, the program faculty will recommend that qualified students be awarded degrees with distinction.

Graduation Requirements Satisfactory completion of 130 credit hours to include 90 credit hours of prerequisite and general-education courses and 40 credit hours of professional courses. All course work must be completed in compliance with the program's and school's academic and professional policies.

For further information, contact Danita Forgey, Acting Director of the Health Information Administration Program, IUPUI, Coleman Hall 303, 1140 W. Michigan Street, Indianapolis, IN 46202-5119, (317) 274-1572, E-mail: dforgey@iupui.edu.

Courses in Health Information Administration

“P” refers to a course prerequisite and “C” to a course that must be taken concurrently.

AHLT M310 Medical Specialty Lectures (2 cr.)

P: Anatomy, Physiology. Lectures on disease and treatment in the areas of medicine, surgery, obstetrics, gynecology, and pediatrics. Selected clinical areas, e.g., pharmacology, radiology, clinical laboratory, pathology, and radiation therapy, will also be included.

AHLT M322 Hospital Organization and Management (2 cr.)

P: junior standing. Orientation to hospital departments; hospital organization; inter- and intra-relationships of hospital and community agencies.

AHLT M330 Medical Terminology (3 cr.)

(2 lectures—2 lab hrs.) P: BIOL N261, P215, and MICR J200 or equivalents. Understanding and use of medical vocabulary; emphasis on speaking, reading, and writing skills.

AHLT M357 Clinical in Medical Record Technology (1 cr.)

Professionally supervised assignments in the technical aspects of health information services in an approved clinical site.

AHLT M411 Medical Record Science I (5 cr.)

History, content, form, numbering, filing, securing, preserving, coding, and indexing medical records; computer applications and statistics; the professional health information administrator and his/her relationship to the health facility, the medical staff, and committees.

AHLT M412 Medical Record Science II (5 cr.)

Principles and practices of health information services administration in the hospital and in specialized health care facilities.

AHLT M441 Directed Practice Experience I (4 cr.)

Supervised laboratory practice with onsite observations of medical record technical and administrative systems. Application of health information management procedures in the clinical setting.

AHLT M442 Directed Practice Experience II (6 cr.) Seminar in health information administration topics. Planning and layout of health information services. Inservice presentations for health information personnel. Computer applications in medical and administrative systems. Individualized instruction in health information practice. Project assignments in the quality improvement area for health information services.

AHLT M445 Medicine and the Law (2 cr.) P: BUS L201 or L203. Presentation of concepts of law in medical and/or health-related areas as applied to the physician, the hospital, health institutions, the medical record, and the individual health worker.

AHLT M459 Clinical in Medical Record Administration (4 cr.) Professionally supervised internship in an approved clinical site for management experiences in health information services.

Educational programs, to include certificate programs, in health information technology are located on the following Indiana University campuses: Indiana University-Purdue University Fort Wayne, Indiana University Northwest, Indiana University Southeast.

A program is being developed at Indiana University Kokomo. For further information, contact Dr. Robert Roales, Chairperson of the Division of Allied Health Sciences, (765) 455-9371.

Health Sciences Education

The educational program in Health Sciences Education is located on the Indiana University-Purdue University Indianapolis campus.

Description of the Profession Health sciences educators plan, implement, and evaluate educational programs designed to prepare persons to practice in the health care delivery system. Additionally, educators may be involved in in-service or continuing professional education.

Graduates of the Program While most health sciences educators are employed in college or university settings, others work in secondary schools, hospitals, vocational-technical institutions, health care facilities, and agencies. They also coordinate in-service and continuing professional education programs for health care facilities, agencies, and associations.

The program graduate is eligible to seek teacher certification as a secondary teacher in health occupations education in the state of Indiana. However, this requires completion of the teacher certification option. This certification is important when seeking employment as a health occupations teacher in the secondary schools.

Credentials Required to Practice Current credentials in health care specialty.

Licensure Requirements to Practice State teaching license, if required. License to practice in credentialled area if required by state.

Bachelor of Science in Health Sciences Education at Indiana University-Purdue University Indianapolis

Program Director: Associate Professor Gable

EDUCATIONAL PROGRAM

Length of the Program A total of 129-130 credit hours is required for the noncertification option while the teacher certification option requires 139 credit hours. The length of the program depends upon the number of credit hours in which the student enrolls per semester to complete the requirements for the degree.

Structure of the Program The program can be completed on either a full-time or part-time basis. Program courses are frequently scheduled during evening hours.

Design of the Professional Curriculum The professional courses focus on the planning, implementation, and evaluation of educational episodes and programs. The professional component of the curriculum integrates knowledge bases of educational philosophy, psychology, methodology, and evaluation with practical experiences in health care sciences educational settings. A 12 credit hour capstone teaching practicum is required.

Opportunity for Students to Work Most students continue their employment as full-time health care practitioners while completing program and degree course work on a part-time basis.

Program Facilities The office for the Health Sciences Education Program offered at the Indiana University Medical Center is located in Coleman Hall. Classes convene in Coleman and other IUPUI buildings. Practicum experiences are completed in schools, hospitals, vocational-technical institutions, colleges, and universities in Indiana.

ADMISSION General Information

Students accepted into the program must complete the university's, school's, and program's admission requirements.

Specific Requirements

In addition to the School of Allied Health Sciences admission policies and procedures found at the beginning of this section of the bulletin, the following admission policies apply to the Health Sciences Education Program.

Credentials Applicants must possess current and appropriate credentials representing their health care field.

Work Experience Applicants must show evidence of a minimum of two years (or equivalent) full-time employment in their credentialled health care field.

Application Deadline There is no application deadline. Students may begin course work the semester following their acceptance.

Distribution of Credit Hours in Specific Areas Applicants must have official transcripts identifying educational preparation in their credentialled health care field.

Limitations of Course Work Remedial course work will not count toward the cumulative grade point average at application or as credit toward the degree.

Minimum Cumulative Grade Point Average 2.50 on a 4.00 scale. This requirement is applied at the time of program application and must be maintained.

Interview Qualified applicants will be interviewed prior to admission.

Technical Standards See School of Allied Health Sciences policy.

Medical Requirements Admitted students must be able to present evidence of acceptable health status upon request.

Indiana Residents Preference Policy See School of Allied Health Sciences policy.

CURRICULUM Prerequisites

Prior to entering the program, the student must complete an educational program that leads to an appropriate credential and/or licensure in a nationally recognized health care field.

Program Plan of Study

Based on the student's prior educational experiences, the program director and the student formulate an academic program plan to assure that the student obtains a general-education component representing principles identified on the IUPUI campus. These principles will permeate the general-education component of a minimum of 45 credit hours of course work made up of humanities, social and behavioral sciences, and life and physical sciences. If the minimum of 52 credit hours of course work in the health care sciences component of the degree has not been met by the student's prior educational preparation, further course work will be identified and required. The specific health sciences education component of the program represents 32-42 credit hours depending on the program option selected. Courses in the professional component may be sequential and, therefore, must be taken in the order specified by program faculty.

Awards Based on superior performance and in accordance with Indiana University-Purdue University Indianapolis policies, the program faculty will recommend that qualified students be awarded degrees with distinction. Additionally, students may choose to participate in the IUPUI Honors Program and may be qualified for appropriate recognition.

Graduation Requirements Satisfactory completion of 129-142 credit hours (depending on the program option selected) to include 45 credit hours in general education, 52 credit hours in health care preparation, and 32-42 credit hours in health sciences education and a capstone teaching practicum. All course work must be completed in compliance with the program's, school's, and university's academic and professional policies.

For further information, contact Professor Karen E. Gable, Director of the Health Sciences Education Program, School of Allied Health Sciences, IUPUI, Coleman Hall 304, 1140 W.

Michigan Street, Indianapolis, IN 46202-5119, (317) 278-1353, Fax: (317) 274-1795, E-mail: kgable@iupui.edu.

Master of Science in Health Sciences Education at Indiana University–Purdue University Indianapolis

Program Director: Associate Professor Gable

The Master of Science is an advanced degree program for credentialed health care practitioners intending to work in educational and clinical settings. The program curriculum integrates knowledge from educational philosophy, psychology, methodology, and evaluation with existing skills from a specialized health care field.

The program accommodates the needs of students employed full time as health care practitioners and can be completed on either a full-time or part-time basis. Program courses are scheduled during evening hours.

Program Requirements

The graduate program consists of a minimum of 39 credit hours including a required 6 credit hour practicum or thesis. The program curriculum consists of four components: (1) core foundation courses, (2) health sciences education courses, (3) elective courses outside of health sciences education, and (4) completion of a capstone practicum or research-based thesis that includes at least 6 credit hours and two semesters of course work. The program director and the student formulate an academic program plan to assure relevance to the student's long-range professional plans.

ADMISSION

Requirements Students accepted into the program must complete the university's, school's, and program's admission requirements. The minimum admission requirements are as follows.

1. Undergraduate academic achievement with a grade point average of at least a 3.00 on a 4.00 scale.
2. Acceptable performance on the Graduate Record Examination.
3. Three letters of recommendation describing clinical expertise and potential, experience and potential as a health care educator, and potential of academic achievement as a graduate student.
4. Applicants must possess current and appropriate credentials representing their health care field.
5. Applicants should show evidence of a minimum of two years (or equivalent) of full-time employment in their credentialed health care field.

Exceptions to these requirements may be granted by the School of Allied Health Sciences Graduate Studies Committee upon written petition from the applicant and with written recommendation from the coordinator of graduate studies of the Health Sciences Education Program. The petition must include a full statement of conditions justifying the exception. Conditional admission will be for a stated time period and will entail specific conditions to be met to receive regular admission status.

No student will be permitted to work toward a degree without first being admitted to the Master of Science Program.

Prior Course Work Applied Toward Degree Requirements A maximum of 6 graduate credit hours earned at Indiana University prior to admission may be applied toward a degree. Upon the recommendation of the coordinator of graduate studies of the Health Sciences Education Program and with the approval of the School of Allied Health Sciences Graduate Studies Committee, up to 8 credit hours of graduate work at other institutions may be transferred in partial fulfillment of degree requirements. No course may be transferred from another institution unless the course was completed with a grade of B or better within five years prior to matriculation in the Master of Science degree program.

Application Materials An applicant must submit completed application forms to the Office of Research and Graduate Studies. Transcripts from all universities attended must be included. Indiana University graduates should request that the Registrar's Office send unofficial copies of their transcripts. Non-Indiana University graduates must submit at least one official transcript from each university attended.

A nonrefundable application fee is required from all applicants who have never attended Indiana University.

For further information, contact Professor Karen E. Gable, Director and Coordinator of Graduate Studies, Health Sciences Education Program, School of Allied Health Sciences, Coleman 322B, 1140 W. Michigan Street, Indianapolis, IN 46202-5119, (317) 278-1353, Fax: (317) 274-1795, E-mail: kgable@iupui.edu.

Courses in Health Sciences Education

"P" refers to a course prerequisite and "C" to a course that must be taken concurrently.

AHLT Z298 Credit by Experience

AHLT Z299 Credit by Credentials

AHLT Z477 Teaching Methodology in Health Sciences Education (3-5 cr.) P: EDUC P255 or equivalent, EDUC H340 or equivalent, EDUC M300 or equivalent if teacher certification is sought. Teaching methods and techniques and choices of material and equipment, with emphasis on evaluation.

AHLT Z486 Student Teaching in Health Sciences Education (12 cr.) P: AHLT Z477, AHLT Z497, two years of experience in health specialty. Each student assumes responsibility under a supervising teacher for teaching in a cooperating secondary, postsecondary, or technical program.

AHLT Z490 Topics in Health Sciences Education (1-3 cr.) Permission required. Special electives offered by the faculty. Prerequisites vary with topic. Honors credit may be available. Students may repeat this course as long as the topic changes each time of enrollment.

AHLT Z497 Principles and Purposes of Health Sciences Education Programs (3 cr.) Historical, legislative, and theoretical foundations of health occupations training and service. Emphasis on roles, responsibilities, and functions of the health occupations/sciences educator.

AHLT Z501 Scientific Inquiry Applied to Health Sciences Education (3 cr.) Analysis and interpretation of data, introduction to theory of advanced statistical techniques, and principles of research design appropriate to didactic, student laboratory, or clinical settings.

AHLT Z507 Evaluation in Health Sciences Education (3 cr.) Principles of construction and interpretation of written achievement tests and other evaluative procedures applied to allied health education in academic, laboratory, and clinical settings.

AHLT Z518 Occupational Education in Health Care Delivery Systems (3 cr.) Historical development of educational and training programs for health sciences/occupations education with emphasis on the educational routes leading to credentialing of a practitioner. Investigation of selected educational trends.

AHLT Z525 Curriculum and Instruction in Health Sciences Education (3 cr.) Principles of curricular construction and design. Content, materials, and methods of instruction in health sciences education.

AHLT Z526 Workshop: Selected Topics in Health Sciences Education (1-3 cr.) Individual and group study dealing with current topics for improving teaching and practice in the health sciences.

AHLT Z530 Clinical Education and Performance Evaluation in Health Sciences Education (3 cr.) Analysis of health care facilities as instructional sites. Emphasizes the educational purpose of clinical experiences, effective use of sites, and legal aspects of clinical educational and clinical performance evaluation.

AHLT Z540 Continuing Education of Health Care Professionals (3 cr.) Orientation to the processes of continuing education as they relate to health care professions, with emphasis on professionalization as a process and its implications for continuing education. Includes exploration of processes of needs determination and instructional episode planning, design, implementation, and evaluation.

AHLT Z590 Individual Study in Health Sciences Education (1-3 cr.) Analysis of select readings; study of health sciences education/allied health sciences research; or critique of research problems, methodology, or theoretical bases with faculty guidance.

AHLT Z594 Administration in Health Sciences Education (3 cr.) Principles of effective organization, supervision, and administration of educational programs in the health sciences. Techniques of program management, budgeting and accounting, and records and reports applied to educational programs in allied health sciences.

AHLT Z595 Practicum in Health Sciences Education (3-6 cr.) Relating educational theory to practice through developmental activities or supervised teaching experience in a health setting. Emphasis upon planning, structuring, and evaluating learning experiences.

AHLT Z599 Thesis in Health Sciences Education (3-6 cr.) Individual investigation in the form of an organized scientific contribution or a comprehensive analysis in a specified area related to health sciences education.

The following graduate courses are integrated into the graduate program.

AHLT W510 Trends and Issues in Allied Health (3 cr.) A seminar course to review pertinent literature and other sources of information as a basis for discussing trends and issues affecting the therapeutic professions and the health care delivery system.

AHLT W520 Research Methodology in Allied Health (3 cr.) P: Graduate-level statistics course. Fundamentals of research methodology, design, techniques, and procedures applicable to research problems in the allied health disciplines. Introduction to computer data analysis.

AHLT W560 Topics (1-3 cr.) Permission required. Prerequisites vary with topic. Exploration of a selected topic related to allied health science disciplines at an advanced level. May be repeated once for credit if topics differ.

AHLT W570 Research Communication in Allied Health Sciences (3 cr.) P: consent of major advisor. Focuses on the conceptualization and writing of research communications in a variety of formats including but not limited to abstracts, peer-reviewed original publications, theses, and grant submissions. Limited to allied health students.

AHLT W799 Master's Thesis Continuation (1 cr.) Used as continuation credits for completing the master's thesis in a format acceptable to the student's advisory committee, leading to successful defense of the final product. May be repeated for credit.

Histotechnology

The nontraditional educational certificate program in histotechnology is based on the Indianapolis campus of Indiana University, with didactic course work delivered via audio teleconferencing to clinical affiliates where the practicum courses are pursued. An Associate of Science in Histotechnology degree is offered to graduates of the certificate program and to histotechnology practitioners who have previously earned certification as a Histologic Technician (HT) or Histotechnologist (HTL) from the Board of Registry of the American Society of Clinical Pathologists.

Description of the Profession A histology technician processes surgical, autopsy, or research

tissue specimens for microscopic examination.

Although most histology technicians work in human health care facilities, many are employed in veterinary, industrial, or research laboratories.

Graduates of the Program After completion of the certificate program, students are eligible to take the national certification exam offered by the Board of Registry of the American Society of Clinical Pathologists. Those who pass the Board of Registry exam may use the initials HT(ASCP) after their name. Students who have completed the program and are certification exam eligible are qualified to practice prior to taking the exam. Although graduates of the associate degree program generally maintain their employment in histopathology laboratories, they often enjoy enhanced opportunity for advancement in the profession.

Associate of Science in Histotechnology at Indiana University-Purdue University Indianapolis

EDUCATIONAL PROGRAM

Length of Program Ten months of certificate level course work, or prior Histologic Technician certification by the Board of Registry of the American Society of Clinical Pathologists, plus additional time for completion of degree requirements. Students should have as their goal to complete the course work in no more than five years from the time they first enroll in the program.

Structure of Program Designed for the employed histologist, the professional course work is offered by distance education. General-education courses may be completed at Indiana University, at other accredited colleges or universities, or through distance education courses.

Design of Professional Curriculum Completion of the certificate-level course work (24 credit hours) is required before pursuit of the associate degree. Alternately, the previously-certified HT(ASCP) may apply for special credit in lieu of completion of the certificate course work. Required general-education courses may be transferred from any accredited college or university, in accordance with university and school policy, or completed through Indiana University's School of Continuing Studies' independent study courses. The Histotechnology Capstone, offered by distance education via audio teleconferencing, will be taken as the student nears completion of the degree.

Program Facilities The Histotechnology Program office is in Coleman Hall at Indiana University-Purdue University Indianapolis.

Additional Costs of the Program In addition to tuition and fees incurred for course registration, the student is responsible for books and/or laboratory fees which may be assessed.

Opportunity to Work The program is designed with the employed histologist in mind; full- or part-time employment is assumed.

ADMISSION

General Information

Students accepted into the program must complete the school's and the following program admission requirements prior to the first day of classes. Admission to the professional program is competitive; therefore, completion of the prerequisites does not guarantee admission to the program. Enrollment in the associate degree program is not limited, therefore most qualified applicants are admitted. However, in the event that enrollment exceeds program resources, applicants who are residents of Indiana are given preference for admission before out-of-state applicants.

Criteria Used for Selection of Class Successful completion of the certificate-level course work. Alternately, prior certification by the ASCP BOR as an HT or HTL and application for the program's special credit option.

Specific Requirements In addition to the School of Allied Health Sciences admission policies and procedures found at the beginning of this bulletin, the following admission policies apply to the Associate of Science in Histotechnology degree.

Application Deadline Applications are accepted year-round.

Minimum Academic Requirements High school graduate or equivalent. A minimum grade point average of 2.00 on a 4.00 scale in prerequisite courses is required for admission and must be maintained in all courses throughout the program.

Minimum Cumulative Grade Point Average 2.00 on a 4.00 scale. This requirement is applied at admission and must be maintained. Grades earned in remedial courses are not used to calculate the cumulative grade point average.

Minimum Grade Requirement in Prerequisite Courses C (2.00 on a 4.00 scale).

Technical Standards See School of Allied Health Sciences policy.

Professional Program

All required general-education courses (except for anatomy and chemistry courses) are offered by distance delivery through the School of Continuing Studies at Indiana University; however, courses may be completed elsewhere and transferred to IUPUI. General-education courses may be completed in any sequence. The Histotechnology Capstone course is designed to be taken near the completion of the associate degree.

Fall Semester

Histotechnology I AHLT H101	3 cr.
Histotechnology Practicum I	
AHLT H181	3 cr.
Histotechnology II AHLT H102	3 cr.
Histotechnology Practicum II	
AHLT H182	3 cr.

Spring Semester

Histotechnology III AHLT H103	3 cr.
Histotechnology Practicum III AHLT H183	3 cr.
Histotechnology IV AHLT H104	3 cr.
Histotechnology Practicum IV AHLT H184	3 cr.
Total	24 cr.

Degree Completion Courses The following courses must be satisfactorily completed for the associate degree. The code "G" indicates a course that meets the school's general-education requirements.

Introductory Psychology (G)	3 cr.
Introduction to Sociology (G)	3 cr.
College Pre-Calculus Math (G)	3 cr.
Elementary Composition (G)	3 cr.
Professional Writing Skills (G)	3 cr.
Interpersonal Communication (G)	3 cr.
Introduction to Microcomputers and Computing (G)	3 cr.
Contemporary Biology (G)	3 cr.
Medical Terms from Greek and Latin (G)	2 cr.
Anatomy (G)	3 cr.
Elementary Chemistry (G)	3 cr.
Histotechnology Capstone	6 cr.

Total Professional and Degree Completion Courses 62 cr.

Special Credit Policy Practicing histologists certified by ASCP (HT or HTL) may apply for special credit courses H105 and/or H185, in lieu of taking certificate-level courses, when working toward the associate degree at IUPUI. Special credit courses H105 and H185 are not transferable to other colleges or universities.

Scholarships The American Society for Clinical Pathologists, the National Society for Histotechnology, and several states' histology professional organizations sponsor scholarships for students in histotechnology. Other scholarship and financial aid opportunities may be available through the IUPUI Office of Scholarships and Financial Aid.

Graduation Requirements Satisfactory completion of 62 credit hours to include 32 credit hours of general-education courses and 30 credit hours of professional courses. All course work must be completed in compliance with the program's and school's academic and professional policies.

For further information, contact Glenda Hoye, Director, Histotechnology Program, IUPUI, Coleman Hall 322, 1140 W. Michigan Street, Indianapolis, IN 46202-5119, (317) 278-1599 or 278-1690, Fax: (317) 278-1820, E-mail: ghoye@iupui.edu.

Certificate in Histotechnology at Indiana University-Purdue University Indianapolis

Medical Director: Ulbright

Program Director: Hoye

EDUCATIONAL PROGRAM

Length of the Program 10 months of professional course work beginning with fall

semester. The course of study consists of eight courses (24 credit hours), including four didactic courses and four practicum courses.

Structure of the Program Histotechnology didactic course teleconferences are delivered once per week during the day; practicum course work is done at qualified clinical sites and can be completed at any time approved by the supervisor in the student's laboratory.

Design of Professional Curriculum Students employed in laboratories that qualify as clinical affiliate sites are accepted into the Histotechnology Program to begin the course of study in the fall semester. The curriculum consists of didactic and practicum courses delivered by distance learning to students pursuing on-the-job training in histology laboratories. The 120-minute interactive audio-teleconference lectures are delivered once per week and are accompanied by related assignments that require approximately 3.5 hours per week for completion. The practicum course modules are designed to be accomplished in approximately 16 hours per week; however, as part of on-the-job training, students' full-time technical training at their place of employment is assumed. The Histotechnology Program is designed to:

- Provide educational and clinical experiences in all areas of histologic technology to prepare students for beginning a career as a histologic technician.
- Provide the medical communities nationwide with individuals qualified to effectively carry out the functions of the histotechnology discipline.
- Assist the affiliate site's histology trainers in effectively meeting students' needs in accomplishing the course work.
- Assist students in reaching their goals by providing academic, occupational, and personal guidance.

Program Facilities The Histotechnology Program office is located in Coleman Hall at Indiana University Purdue University—Indianapolis (IUPUI).

"Classrooms" for delivery of teleconferences, as well as practical training sites, are located in institutions throughout the United States that qualify as clinical affiliates where students are located. Clinical affiliate sites may vary from year to year, as training needs change.

Additional Costs of the Program In addition to Indiana resident tuition and course fees, students are required to purchase books. Completion of course requirements may necessitate the purchase of laboratory supplies not ordinarily used at the student's training facility laboratory. Clinical training laboratories may cover some expenses for laboratory supplies and mailing costs for submission of assignments to the program office. Additional training costs to the student and/or laboratory are estimated at \$400.00 per year.

Feasibility of Work for Students Since the program is designed with the on-the-job student in

mind, full-time employment in a histology laboratory is assumed.

Accreditation The Histotechnology Program at Indiana University—Purdue University Indianapolis is fully accredited by the National Accrediting Agency for Clinical Laboratory Sciences (NAACLS), 8410 W. Bryn Mawr Avenue, Chicago, IL 60631; (773) 714-8880.

ADMISSION

Criteria Used for Selection of Class High school graduate (or equivalent), completion of prerequisites, employed in or having appropriate access to a qualified laboratory, and recommended by the laboratory supervisor. Admission to the program is limited by the number of teleconference connections available for delivery of lectures; therefore, completion of the program application does not guarantee admission.

The Histotechnology Program is designed to reach students in all parts of the nation. However, preference for admissions is ranked as follows: (1) students in laboratories with multiple noncertified students; (2) students in laboratories with one noncertified student. Other applicants will be admitted as class capacity allows.

Class Size Class size is limited by the teleconference ports available for delivery of lectures to distance sites. Affiliate sites may accommodate more than one student, depending on the laboratories' capacity for training; the training facility may accommodate students from additional local sites for teleconference purposes. Theoretically, there is no limit to class size.

Specific Requirements

In addition to the School of Allied Health Sciences admission policies and procedures found at the beginning of this section of the bulletin, the following admission policies apply to the Histotechnology Program.

Application Deadline May 1 of the year of anticipated entry.

Minimum Academic Requirements High school graduate or equivalent. A minimum grade point average of 2.00 on a 4.00 scale in prerequisite courses is required for admission, and must be maintained in professional courses. See prerequisites.

Minimum Grade Requirement in Prerequisite Courses C (2.00 on a 4.00 scale).

Technical Standards See School of Allied Health Sciences policy.

Volunteer Experience Although volunteer experience is not required of applicants, it is highly recommended that students with no histology laboratory experience spend time in a histology laboratory to assure serious interest before proceeding with application to the program.

Scholarships The American Society for Clinical Pathologists, the National Society for Histotechnology, and several states' histology professional

organizations sponsor scholarships for students in histotechnology. Other scholarship and financial aid opportunities may be available through the Office of Scholarships and Financial Aid.

CURRICULUM

Prerequisites

Students are required to have completed, within 10 years prior to admission, courses in chemistry, biology, and mathematics. High school or college courses with a minimum grade point of 2.00 on a 4.00 scale are acceptable. All prerequisite courses must be completed before admission to the program.

Professional Program

Paired didactic and practicum subject courses must be taken concurrently. Courses are offered and must be completed in sequence. Students register for classes as follows:

Fall

Histotechnology I AHLT H101	3 cr.
Histotechnology Practicum I AHLT H181	3 cr.
Histotechnology II AHLT H102	3 cr.
Histotechnology Practicum II AHLT H182	3 cr.
Total	12 cr.

Spring

Histotechnology III AHLT H103	3 cr.
Histotechnology Practicum III AHLT H183	3 cr.
Histotechnology IV AHLT H104	3 cr.
Histotechnology Practicum IV AHLT H184	3 cr.
Total	12 cr.

Program Completion Requirements Satisfactory completion of 24 credit hours of professional courses. All course work must be completed in compliance with the program's and school's academic and professional policies.

For further information, contact Glenda Hoye, Director, Histotechnology Program, IUPUI, Coleman Hall 322, 1140 W. Michigan Street, Indianapolis, IN 46202-5119, (317) 278-1599 or (317) 278-1690, Fax: (317) 278-1820. E-mail: ghoye@iupui.edu.

Courses in Histotechnology

"P" refers to a course prerequisite and "C" to a course that must be taken concurrently.

AHLT H101 Histotechnology I (3 cr.) C: H181. Teleconference lectures and related written supplemental assignments with focus on specimen receipt and accessioning, laboratory safety, laboratory chemistry and math, instrumentation and fixation.

AHLT H102 Histotechnology II (3 cr.) P: H101; C: H182. Teleconference lectures and related written supplemental assignments with focus on decalcification, tissue processing and embedding, microtomy, general staining theories, and nuclear and cytoplasmic staining.

AHLT H103 Histotechnology III (3 cr.) P: H102; C: H183. Teleconference lectures and related written supplemental assignments with focus on special

staining methodology to include connective tissue, carbohydrates, amyloid, lipids, microorganisms, pigments and minerals.

AHLT H104 Histotechnology IV (3 cr.) P: H103; C: H184. Teleconference lectures and related written supplemental assignments with focus on special staining methodology to include nerve and special cells and enzyme and immunohistochemical staining, with an overview of selected topics.

AHLT H105 Histotechnology Credential Theory (12 cr.) Special credit awarded for ASCP registry status or for histology experience and accomplishment of partial registry exam. Contact program director for further information.

AHLT H181 Histotechnology Practicum I (3 cr.) C: H101. Clinical practicum experience in topics covered in H101, performed under direct supervision of designated registered histologist.

AHLT H182 Histotechnology Practicum II (3 cr.) P: H181; C: H102. Clinical practicum experience in topics covered in H102, performed under direct supervision of designated registered histologist.

AHLT H183 Histotechnology Practicum III (3 cr.) P: H182; C: H103. Clinical practicum experience in topics covered in H103, performed under direct supervision of designated registered histologist.

AHLT H184 Histotechnology Practicum IV (3 cr.) P: H183; C: H104. Clinical practicum experience in topics covered in H104, performed under direct supervision of designated registered histologist.

AHLT H185 Histotechnology Credential Practicum (12 cr.) Special credit awarded for ASCP registry status or for histology experience and accomplishment of partial registry exam. Contact program director for further information.

AHLT H201 Comprehensive Experience in Histotechnology (6 cr.) P: Completion of 50 credit hours toward Associate of Science in Histotechnology, to include completion of the technical writing course requirement. Course emphasizes critical thinking, problem-solving skills and literature searches associated with technical and scholarly writing. Introduces students to management issues, supervision, quality assurance principles, and other issues associated with histotechnology laboratory employment.

Medical Imaging Technology

An educational program in medical imaging technology is located on the Indiana University–Purdue University Indianapolis campus. This program is an advanced program for the registered radiographer.

Description of the Profession The medical imaging technologist in radiologic sciences is a skilled radiographer qualified to provide patient service in interventional procedures, computed tomography, ultrasonography, and magnetic

resonance imaging. These areas represent the most advanced imaging in diagnostic radiology. Effective medical imaging technologists utilize principles of radiation protection as they determine exposure factors and position patients for a variety of examinations. Many of the patient examinations are highly specific, utilizing computers or computerized equipment. Medical imaging technologists are also capable of assisting in the surgical procedures performed during the examination, assessing the technical quality of the image, and providing basic patient care. The technologist must function as a member of the health care team.

Graduates of the Program Graduates receive a Bachelor of Science degree and are eligible to take specialty examinations depending on their major area of concentration.

Credentials Required to Practice RT(R) (ARRT) Registered Radiographer. Advanced qualification credentials are available and may be required by some employers. Currently, depending on the clinical major completed, graduates may be eligible for one or more of the following credentials in addition to the RT(R) (ARRT) required for entry into the program: from the ARRT, cardiovascular-interventional technology (CV), computed tomography (CT), mammography (M), and magnetic resonance imaging (MR), ultrasound (U); from the ARDMS, medical sonography (RDMS) and vascular technology (RVT).

Indiana Certification Requirements to Practice State certification is required to operate an X-ray machine. The state accepts the ARRT Registry for Certification.

Bachelor of Science in Medical Imaging Technology at Indiana University–Purdue University Indianapolis

Medical Director: Professor Cohen

Program Director: Associate Professor Hernandez

Coordinator: Assistant Professor Kehrein

Associate Professor: Long

Assistant Professor: Cox

Adjunct Lecturers: Hinchman, Smith

EDUCATIONAL PROGRAM

This program is designed to prepare qualified medical imaging technologists. The principal aim of the major is to provide students with educational experiences that will permit them to develop the competencies required to function effectively as advanced imaging technologists. Theory and clinical experiences are provided in interventional procedures, computed tomography, magnetic resonance imaging, and ultrasound. Students receive theory in all areas and select one major for clinical experiences.

Length of the Program A new class begins with summer session II each year and continues through the end of the spring semester the next year (10.5 months).

Structure of the Program Students have professional classes or clinical experiences from 8 a.m. to 4 p.m., Monday through Friday. Some evening clinical hours may be required.

Design of the Professional Curriculum The lecture material and clinical experiences are integrated.

Opportunity for Students to Work Generally, employment as a part-time radiographer is available at one of the medical centers or area hospitals.

Additional Cost In addition to regular university tuition and fees, students should expect to pay program-related expenses. Contact the program for a current cost sheet.

Program Facilities The Medical Imaging Technology Program is offered in Indianapolis at the Indiana University Medical Center. The offices, classrooms, and laboratory facilities are located on the first floor of the Clinical Building. Clinical education sites are in the Indianapolis metropolitan area. Students are responsible for their transportation to these sites.

ADMISSION

General Information

Admission to the professional program is competitive; therefore, completion of the prerequisites does not guarantee admission to the program.

Criteria Used for Selection of Class Previous academic record, evidence of registration by the American Registry of Radiologic Technologists (ARRT), an essay, recommendation letters, and availability of major clinical concentration.

Class Size Based on the availability of clinical education sites for each major area.

Specific Requirements

In addition to the School of Allied Health Sciences admission policies and procedures found at the beginning of this bulletin, the following admission policies apply to the Medical Imaging Technology Program.

Application Deadline November 15 of the year prior to anticipated entry.

Total Number of Prerequisite Credit Hours 82.

Minimum Cumulative Grade Point Average 2.50 on a 4.00 scale at the time of application. All college courses taken, including remedial courses and courses that do not meet prerequisite requirements, are considered when calculating the minimum cumulative grade point average.

Minimum Specific Grade Point Average Cumulative 2.30 on a 4.00 scale for all life and physical science course work. All college life and physical sciences courses taken, including remedial courses and courses that do not meet prerequisite requirements, are considered when calculating the minimum life and physical science grade point average. 2.70 for all radiologic technology courses and 3.00 for clinically related courses.

Minimum Grade Requirement in a Stated Prerequisite Course C (2.00 on a 4.00 scale).

Interview An interview is not required.

Technical Standards See School of Allied Health Sciences policy.

Indiana Residents Preference Policy See School of Allied Health Sciences policy.

Experience While radiography experience beyond the initial radiography program is not required, it is highly recommended.

Awards The program faculty will recommend to the university graduating students with superior academic performance for degrees awarded with distinction. Also, students with outstanding academic and clinical achievement during their professional program may be recognized by the program at the time of graduation.

CURRICULUM

Prerequisites

Prior to entering the program, students must complete the following minimum prerequisites. Students should consult with their academic advisors for appropriate courses and semester sequence in order to complete prerequisites. Equivalent prerequisites may be taken at any accredited college or university. The code "G" indicates a course that meets the school's general-education requirements.

General-Education Areas

Verbal Communication (G)	2-3 cr.
Written Communication (G)	two courses
(The second writing course should focus on writing a research paper.)	
Humanities Elective (G)	3 cr.
Social/Behavioral Science Elective (G)	3 cr.
Introductory Psychology (G)	3 cr.
College Algebra, Trigonometry, or Calculus (G)	3-5 cr.
General Physics (G)	4-5 cr.
Elementary Chemistry (with lab) (G)	4-5 cr.
Anatomy and Physiology I (with lab)* (G)	4-5 cr.
Anatomy and Physiology II (with lab)* (G)	4-5 cr.
*Individual Anatomy and Physiology courses with labs equaling 8-10 credits may be substituted.	
Introduction to Computers	2-3 cr.
Preprofessional Radiography Course Work	40 cr.

Radiography

This area is complete for applicants who have earned 40 college credit hours in radiography.

Students who received their radiography education without transferable university credit and who have full credentials in radiography (ARRT) may be awarded credit for their credentials and experience and/or may petition to test out of professional radiography courses. The Special Credit Policy is available upon request. Each applicant will be evaluated individually.

Students must select additional courses in radiography or in areas that support, complement, or extend their radiography background if they lack 40 semester hours of earned college credit in radiography.

Suggested Electives (To bring total credit hours up to 82). The number of elective credit hours will differ

for each student to complete a total of 82 credit hours of prerequisite course work. Additional electives may be required, before or during the professional program, to complete a minimum of 122 credit hours of academic work for graduation.

Professional Program

Courses in the professional program are sequential and, therefore, must be taken in the order specified by the program faculty.

Senior

Summer Session II

Sectional Imaging Anatomy AHLT R404	2 cr.
Seminar: Medical Imaging AHLT R407	1 cr.
Topics: Introduction to MIT Project I AHLT R408	1 cr.
Total	4 cr.

Fall

Medical Care I AHLT W374	3 cr.
Topics: Introduction to MIT Project II AHLT R408	1 cr.
Medical Imaging Theory AHLT R451	3 cr.
Clinical Practicum: A choice of 6 credit hours from one or a combination of the following courses; some restrictions apply according to major.	
Interventional Imaging AHLT R481	1-6 cr.
Computed Tomography AHLT R482	1-6 cr.
Magnetic Resonance Imaging AHLT R483	1-6 cr.
Ultrasound Imaging AHLT R484	1-6 cr.
Total	13 cr.

Spring

Medical Care II AHLT W471	3 cr.
Senior Project in Medical Imaging Technology AHLT R409	3 cr.
Medical Imaging Applications AHLT R452	3 cr.
Clinical Practicum: A choice of 6 credit hours from one or a combination of the following courses; some restrictions apply according to major.	
Interventional Imaging AHLT R481	1-6 cr.
Computed Tomography AHLT R482	1-6 cr.
Magnetic Resonance Imaging AHLT R483	1-6 cr.
Ultrasound Imaging AHLT R484	1-6 cr.
Total	15 cr.

Graduation Requirements Satisfactory completion of 122 credit hours. All course work must be completed in compliance with the program's and school's academic and professional policies.

For further information, contact Professor Suetta Kehrein, Coordinator, Medical Imaging Technology Program, IUPUI, Clinical Building 120, 541 N. Clinical Drive, Indianapolis, IN 46202-5111, (317) 274-3803, Fax: (317) 274-4074. E-mail: skehrein@iupui.edu.

Courses in Medical Imaging Technology

"P" refers to a course prerequisite and "C" to a course that must be taken concurrently.

AHLT R404 Sectional Imaging Anatomy (2 cr.)

An in-depth study of sectional anatomy pertinent to ultrasound, computed tomography, and magnetic resonance imaging. Standard transverse, parasagittal, and coronal planes are included, utilizing images from all three imaging modalities. A discussion of technique, artifact, and pathology-related alterations of cross-sectional anatomic appearances is included.

AHLT R407 Seminar (1-5 cr.) Individual and group study focusing upon advances in medical imaging.

AHLT R408 Introduction to MIT Projects I and II (0.5-4 cr.) Study of selected topics in radiologic sciences. May be repeated once for credit if topics differ.

AHLT R409 Senior Project in Medical Imaging Technology (3 cr.) Independent readings and research on a selected medical imaging topic. A paper in publishable form must be written as part of the project.

AHLT R451 Medical Imaging Theory (3 cr.) P: Math, Physics, AHLT R404. Lectures on the physical principles of advanced imaging modalities including computed tomography, magnetic resonance, ultrasound, and interventional imaging. Image evaluation of normal studies is stressed. Student presentations and journal reports are required.

AHLT R452 Medical Imaging Applications (3 cr.) P: AHLT R451. Lectures on and evaluations of the computed tomographic, magnetic resonance, ultrasound, and interventional images as applied to pathologic conditions of specific body areas. Student presentations and journal reports are required.

AHLT R481 Clinical Practicum: Interventional Imaging (.5-8 cr.) P: AHLT R404, RT(R). Clinical experience in the performance of interventional imaging studies.

AHLT R482 Clinical Practicum: Computed Tomography (.5-8 cr.) P: AHLT R404, RT(R). Clinical experience in the performance of computed tomographic imaging studies.

AHLT R483 Clinical Practicum: Magnetic Resonance Imaging (.5-8 cr.) P: AHLT R404. Clinical experience in the performance of magnetic resonance imaging studies.

AHLT R484 Clinical Practicum: Ultrasound Imaging (.5-8 cr.) P: AHLT R404. Clinical experience in the performance of ultrasound imaging studies.

AHLT R485 Clinical Practicum (.5-8 cr.) P: AHLT R404. Clinical experience in medical imaging studies.

Specific area of experience will be determined by availability of instruction.

Nuclear Medicine Technology

An educational program in nuclear medicine technology is located on the Indiana University-Purdue University Indianapolis campus.

Description of the Profession The graduate nuclear medicine technologist is qualified to provide patient diagnostic and therapeutic services using ionizing radiation in the form of gamma rays, X rays, and beta rays. These radiations emanate from radioactive materials. Nuclear medicine technologists perform patient organ imaging procedures, radioactive analysis of biological specimens (blood, urine), and some therapeutic applications of radioactive materials. Effective nuclear medicine technologists utilize principles of radiation protection as they prepare and administer radioactive materials for a variety of examinations. They are capable of performing quality control procedures on the instrumentation and radioactive materials. Nuclear medicine technologists also assist physicians in clinical procedures, give intravenous injections, draw blood, assess the technical quality of the studies, and provide basic patient care. The nuclear medicine technologist must function as a member of the health care team.

Graduates of the Program Graduates receive a Bachelor of Science degree and are eligible to take the certification examination of the American Registry of Radiologic Technologists (ARRT) and the Nuclear Medicine Technology Certification Board (NMTCB) to become certified as a nuclear medicine technologist, R.T.(N) or C.N.M.T.

Credentials Required to Practice

R.T.(N) (ARRT), Registered Nuclear Medicine Technologist or C.N.M.T. (NMTCB), Certified Nuclear Medicine Technologist.

Bachelor of Science in Nuclear Medicine Technology at Indiana University-Purdue University Indianapolis

Medical Advisor: Professor Schauwecker

Program Director: Associate Professor Hernandez

Educational Program Director: Associate Professor Kosegi

Associate Professors: English, Mock, Mulholland

Assistant Professors: Richard, Anger

Instructor: Lewis

Lecturers: Hall, Kuster, Shiplett, Fain

EDUCATIONAL PROGRAM

Length of the Program A new class begins summer session II each year and continues for 22 months.

Structure of the Professional Program The curriculum is designed for persons with no previous experience in nuclear medicine, although experienced technologists may apply for admission. During the junior year, students have classes on Monday, Wednesday, and Friday plus eight hours of

clinical practicum on each Tuesday and Thursday and four hours on Friday mornings. Senior students have eight hours of clinical practicum on each Monday, Wednesday, and Friday plus classes on Tuesday and Thursday. Clinical practicums may also require some evening and off-hour assignments.

Design of the Professional Curriculum This degree is designed to prepare qualified nuclear medicine technologists. The principal aim of the degree is to provide students with educational experiences that will permit them to develop the competencies required to function effectively as nuclear medicine technologists. The curriculum integrates theory and clinical experience.

Opportunity for Students to Work Some part-time employment may be available in the radiology departments at the Indiana University Medical Center. There are no restrictions on the number of hours a student may work during the program as long as work does not interfere with program requirements. However, the student must recognize that the professional curriculum requires approximately 25 to 35 clock hours per week of on-campus participation in classroom, laboratory, and clinical course work. Study time and completion of general education courses must also be considered. While most of the professional course activities are scheduled during daytime hours Monday through Friday, there are some clinical experiences that may require student participation during evenings or other off hours. Please contact the program for more information.

Additional Cost In addition to regular university tuition and fees and textbook expenses, students should expect to pay program-related expenses. Contact the program for a current cost sheet.

Program Facilities The nuclear medicine technology program is offered in Indianapolis at the Indiana University Medical Center. The offices, classrooms, and library are located on the first floor of the Clinical Building. Students obtain clinical experience in the nuclear medicine areas of radiology departments located in University, Riley, Wishard, and Veterans Administration hospitals. Other clinical education sites in the Indianapolis area may also be used.

Accreditation The bachelor's degree in nuclear medicine technology is fully accredited by the Joint Review Committee on Educational Programs in Nuclear Medicine Technology.

ADMISSION

General Information

Admission to the professional program is competitive; therefore, completion of the prerequisites does not guarantee admission to the program.

Class Size Seven students each summer session II (late June).

Specific Requirements

In addition to the School of Allied Health Sciences admission policies and procedures found at the beginning of this section of the bulletin, the following apply to the Nuclear Medicine Technology Program.

Application Deadline November 15 of the year prior to anticipated entry.

Total Number of Prerequisite Credit Hours
60.**Minimum Cumulative Grade Point Average**

2.50 on a 4.00 scale. This requirement is applied at the time of program application and must be maintained. The grades from all college courses taken, including remedial courses and courses that do not meet prerequisite requirements, are considered when calculating the minimum cumulative grade point average.

Minimum Specific Grade Point Average 2.50

on a 4.00 scale for all life and physical science course work. This requirement is applied at the time of program application and must be maintained. The grades from all college life and physical sciences courses taken, including remedial courses and courses that do not meet prerequisite requirements, are considered when calculating the minimum specific grade point average.

Minimum Grade Requirement in a Stated

Prerequisite Course C (2.00 on a 4.00 scale).

Interview Qualified applicants must participate in an interview. Interviews are conducted in January or early February.

Technical Standards See School of Allied Health Sciences policy.

Indiana Residents Preference Policy See School of Allied Health Sciences policy.

Volunteer Experience Volunteer experience is not required. However, applicants must observe in a nuclear medicine facility before an interview will be scheduled.

Awards The faculty will recommend to the university graduating students with superior academic performance for degrees awarded with distinction. Also, students with outstanding academic and clinical achievement during their professional program may be recognized by the program at the time of graduation.

CURRICULUM**Prerequisites**

Prior to entering the program, students must complete the following minimum prerequisites. Students should consult with their academic advisors for appropriate courses and semester sequence in order to complete prerequisites. Prerequisites may be taken at any accredited college or university. The code "G" indicates a course that meets the school's general-education requirements.

Written Communications (2 courses) (G)	4-6 cr.
(The second writing course should focus on writing a research paper.)	
Verbal Communications (G)	2-3 cr.
Introductory Psychology (G)	3 cr.
Elementary Chemistry I (with lab) (G)	4-5 cr.
Elementary Chemistry II (with lab) (G)	4-5 cr.
Physics (G)	4-5 cr.
Anatomy and Physiology I (with lab)*	4-5 cr.
Anatomy and Physiology II (with lab)*	4-5 cr.
*Individual Anatomy and Physiology courses with labs equaling 8-10 credits may be substituted.	

College Algebra and Trigonometry or Algebra and Survey of Calculus (G)	5-6 cr.
Introduction to Computers	1-3 cr.
Science Electives	6 cr.
*Electives (to complete 60 credit hours selected from the following graduation requirements)	
Humanities elective (G)	3 cr.
Social/Behavioral Science electives (G)	6 cr.
General electives	9 cr.
Total	60 cr.

A Suggested Plan of Study**Freshman****Fall**

English Composition	3 cr.
Verbal Communications course	3 cr.
Algebra	3 cr.
Chemistry I (with lab)	5 cr.
Total	14 cr.

Spring

English Composition	3 cr.
Psychology	3 cr.
Trigonometry or Brief Survey of Calculus	3 cr.
Chemistry II (with lab)	5 cr.
Total	14 cr.

Sophomore**Fall**

Anatomy & Physiology I	4 cr.
Introduction to Computers	3 cr.
Science elective	3 cr.
General electives	6 cr.
Total	16 cr.

Spring

General Physics	5 cr.
Anatomy and Physiology II	4 cr.
Social/Behavioral Science elective	3 cr.
Humanities elective	3 cr.
Total	15 cr.

Professional Program

Courses in the professional program are sequential and, therefore, must be taken in the order specified by the program faculty.

The 63 professional credits listed below are obtained within a 22-month period and fulfill eligibility requirements for the registry examination in nuclear medicine technology. Some electives may be taken (as shown below) during the 22-month program.

Junior**Summer Session II**

Patient Care in Radiologic Sciences AHLT R104	2 cr.
Medical Terminology AHLT R185	1 cr.
Seminar: Professional Values AHLT R207	1 cr.
Radiation Protection in Nuclear Medicine AHLT R437	1 cr.
Total	5 cr.

Fall

Projects in Nuclear Medicine Technology AHLT R410	1 cr.
Physics and Instrumentation of Nuclear Medicine I AHLT R412	2 cr.
Applications of Radionuclides I AHLT R432	3 cr.
Clinical Nuclear Medicine Practicum I AHLT R445	6 cr.
Elective (if needed for graduation)	3 cr.
Total	15 cr.

Spring

Topics: Medical Assisting in Radiology AHLT R208	2 cr.
Seminar: Nuclear Medicine In-Service I AHLT R407	1 cr.
Projects in Nuclear Medicine Technology AHLT R410	1 cr.
Physics and Instrumentation of Nuclear Medicine II AHLT R417	2 cr.
Radionuclide Measurement AHLT R422	2 cr.
Clinical Nuclear Medicine Practicum I AHLT R445	4 cr.
Elective (if needed for graduation)	3 cr.
Total	15 cr.

Senior**Summer Session I**

Radiobiology in Nuclear Medicine AHLT R440	1 cr.
Clinical Nuclear Medicine Practicum II AHLT R446	2 cr.
Elective (if needed for graduation)	3 cr.
Total	6 cr.

Summer Session II

Topics: Nuclear Medicine Management AHLT R408	1 cr.
Clinical Nuclear Medicine Practicum II AHLT R446	2 cr.
Elective (if needed for graduation)	3 cr.
Total	6 cr.

Fall

Medical Care I AHLT W374	3 cr.
Seminar: Nuclear Medicine In-Service II AHLT R407	1 cr.
Radiopharmaceuticals AHLT R427	2 cr.
Clinical Nuclear Medicine Practicum III AHLT R447	6 cr.
Total	12 cr.

Spring

Medical Care II AHLT W471	3 cr.
Seminar: Nuclear Medicine In-Service III AHLT R407	1 cr.
Projects in Nuclear Medicine Technology AHLT R410	3 cr.
In Vivo and In Vitro Studies AHLT R430	1 cr.
Applications of Radionuclides II AHLT R433	2 cr.
Clinical Nuclear Medicine Practicum III AHLT R447	6 cr.
Total	16 cr.

Graduation Requirements Satisfactory completion of a minimum of 122 credit hours. All course work must be completed in compliance with the program's and school's academic and professional policies.

For further information, contact Professor Sarah Baker, Nuclear Medicine Admissions Advisor, or Judy Kosegi, Educational Director, Nuclear Medicine Technology Program, IUPUI, Clinical Building 120, 541 Clinical Drive, Indianapolis, IN 46202-5111, (317) 274-3802, Fax: (317) 274-4074, E-mail: ssbaker2@iupui.edu or jkosegi@iupui.edu.

Courses in Nuclear Medicine Technology

The AHLT courses with R100- or R200-level numbers are found in the radiography section of this bulletin.

"P" refers to a course prerequisite and "C" to a course that must be taken concurrently.

AHLT R408 Topics in Radiologic Sciences (5-4 cr.) Study of selected topics in radiologic sciences. May be repeated once for credit if topics differ.

AHLT R410 Project in Nuclear Medicine Technology (1-3 cr.) Independent readings and research on a selected topic in nuclear medicine technology. A paper in publishable form must be written as part of the project.

AHLT R412 Physics and Instrumentation of Nuclear Medicine I (2 cr.) An introduction to the physical disciplines of nuclear medicine. Lectures and laboratory exercises on radiation physics, computer programming, and the statistics of radiation measurements.

AHLT R417 Physics and Instrumentation of Nuclear Medicine II (2 cr.) A continuation of AHLT R412. Lectures and exercises on electronic principles, the operational fundamentals of radiation counting devices and imaging systems, and quality assurance programs.

AHLT R422 Radionuclide Measurements (2 cr.) Lectures and laboratory sessions emphasizing the clinical utilization of nuclear counting and imaging systems and principles of quantitative measurements.

AHLT R427 Radiopharmaceuticals (2 cr.) Lectures and laboratories concerning properties and preparation of radiopharmaceuticals.

AHLT R430 In Vivo and In Vitro Studies (1 cr.) This course will introduce the principles of tracer methodology and apply that methodology to the measurement of dynamic and steady state systems within the body. Special emphasis will be placed on measuring physiological and hematological functions.

AHLT R432 Application of Radionuclides I (3 cr.) Lectures covering the clinical aspects of nuclear medicine procedures, including the physiological and technical procedures for each type of study.

AHLT R433 Application of Radionuclides II (2 cr.) P: AHLT R432. Lectures covering the clinical aspects of nuclear medicine procedures. Includes pathology related to procedures and the role

technologists play in helping physicians gather information for accurate interpretations.

AHLT R437 Radiation Protection in Nuclear Medicine (1 cr.) Lectures on the principles of radiation protection in nuclear medicine.

AHLT R440 Radiobiology in Nuclear Medicine (1 cr.) Lectures on the biological effects of ionizing radiation.

AHLT R445 Clinical Nuclear Medicine Practicum I (4-8 cr.) Practical clinical application of nuclear medicine theory.

AHLT R446 Clinical Nuclear Medicine Practicum II (4-8 cr.) Continuation of AHLT R445.

AHLT R447 Clinical Nuclear Medicine Practicum III (2-8 cr.) Continuation of AHLT R446.

Nutrition and Dietetics

The Nutrition and Dietetics Program offers three post-baccalaureate programs: two certificate programs—the Dietetic Internship and the Pediatric Nutrition Fellowship—and the master of science program in nutrition and dietetics. The three programs require separate enrollments; the internship may not be completed concurrently with the master's program or Pediatric Nutrition Fellowship. However, the Pediatric Nutrition Fellowship may be completed as part of the master's degree in nutrition and dietetics. In addition to graduate course work, the Nutrition and Dietetics Program also offers two undergraduate nutrition classes.

Program Director: Clinical Professor O'Palka
Professors Emeriti: Hopp, Irwin, Van Ness, Wilson
Professors: Brady, Rickard
Associate Professor: Ernst
Clinical Associate Professor: Blackburn

Dietetic Internship at Indiana University-Purdue University Indianapolis

The Dietetic Internship Program is accredited by the American Dietetic Association and accepts 16 interns annually. Admission requirements for the internship include a bachelor's degree from an accredited college or university, a minimum grade point average of 2.90 (4.0 scale) overall, completion of current academic requirements of the American Dietetic Association (must be verified by approved undergraduate dietetic program), and work experience. For further information, contact the Nutrition and Dietetics Program.

Master of Science in Medical Sciences (Nutrition and Dietetics) at Indiana University-Purdue University Indianapolis

EDUCATIONAL PROGRAM

Location of the Program The program is located at the Indiana University Medical Center in Indianapolis and utilizes facilities throughout central Indiana.

Description and Purpose of the Program This graduate program, offered through Indiana University Graduate School, is designed for health care

professionals who have already earned a baccalaureate degree in nutrition or dietetics. The objective of this program is to provide an opportunity for health care professionals and nutrition students to deepen their knowledge base, improve critical thinking skills, and develop research skills in nutrition and dietetics.

The curriculum is designed for the student with a special interest in health promotion or in the nutritional requirements and provision of medical nutrition therapy in acute and chronic conditions such as diabetes or in the care of special populations such as preterm infants. Program affiliations throughout central Indiana provide the opportunity for the student to work with patient populations in both outpatient and inpatient settings as well as with the general public.

This curriculum will not prepare the student to sit for the Registration Examination for Dietitians. Concurrent enrollment in the Master of Science in Nutrition and Dietetics and the Pediatric Nutrition Fellowship is possible. However, concurrent enrollment in the Master of Science in Nutrition and Dietetics and the Dietetic Internship Program is not permitted.

Course Requirements Students will be required to take graduate-level courses in biochemistry, statistics or biostatistics, and physiology. Other courses and clinical study (open only to students who are registered dietitians) may be selected from the graduate-level offerings of the Nutrition and Dietetics Program and from other schools and departments on the Indiana University-Purdue University Indianapolis campus.

Minimum Requirements for the Degree To earn the M.S. degree, a minimum of 37 credit hours (43 if the Pediatric Nutrition Fellowship is included) at the graduate level are required. Candidates for this degree may petition to apply up to 8 credit hours of graduate work from other institutions or programs to this degree. A thesis is required.

ADMISSION

General Information

Admission requirements The School of Allied Health Sciences offers the M.S. in Nutrition and Dietetics through the University Graduate School. Students accepted into the program must meet all the requirements of both the University Graduate School and the School of Allied Health Sciences. The minimum admission requirements are: a bachelor's degree from an accredited institution; a current health care practice credential or proof of completion of undergraduate major in nutrition or dietetics; cumulative undergraduate GPA of at least 3.0 on a 4.0 scale; an appropriate level of achievement on the Graduate Record Examination; and for international students, a suitable level of achievement on the TOEFL Examination.

Applicants must submit the following: 1) official undergraduate transcripts; 2) a 300- to 500-word personal statement of academic and professional goals; 3) three letters of recommendation from those familiar with the applicant's academic and professional performance; 4) official scores of the Graduate Record Examination (GRE) and the GRE Writing Assessment Exam, taken within the last five

years; 5) for international students, official TOEFL scores.

Applications and further information may be obtained by writing to the following address:

Office of Research and Graduate Studies
School of Allied Health Sciences
Indiana University–Purdue University Indianapolis
1140 W. Michigan Street
Indianapolis, IN 46202-5119

Grade Requirement A minimum of a 3.00 (B) grade point average in graduate work is required for continuance in graduate study. When the grade point average of a student falls below 3.00 or the student is not making sufficient progress toward the degree, the Allied Health Graduate Studies Committee will review the student's record and recommend to the dean that the student be placed on probation. Unless the student achieves a 3.00 grade point average, or begins making satisfactory progress, in the next semester of enrollment, the student will not ordinarily be allowed to continue in the graduate program. For more information about academic regulations, contact the program director.

For further information, contact Professor Jacquelynn O'Palka, Ph.D., R.D., Program Director, Nutrition and Dietetics, IUPUI, Ball Residence Hall 112, 1226 West Michigan Street, Indianapolis, IN 46202-5119, (317) 278-0933, E-mail: jopalka@iupui.edu.

The Pediatric Nutrition Fellowship

The Pediatric Nutrition Fellowship is part of the "Leadership Education Excellence in Pediatric Nutrition" Program, formerly known as the "Neonatal Nutrition Training Program," located at the James Whitcomb Riley Hospital for Children in Indianapolis, IN. The Nutrition and Dietetics Program and the Department of Pediatrics within the Indiana University School of Medicine jointly sponsor this program. The program has been supported by the Bureau of Maternal and Child Health and Resources Development, Health and Human Services since 1978.

The Pediatric Nutrition Fellowship for dietitians/nutritionists is four to six months in length. The fellowship consists of didactic (10 hours/week) and clinical experiences to provide or enhance the pediatric nutrition knowledge, clinical expertise, and leadership skills of the dietitian/nutritionist. The four-month fellowship provides a core of pediatric nutrition competencies related to infants, children and adolescents with special health needs. During the last two months of the six-month fellowship, fellows may specialize in one of three areas: (1) care of newborns in intensive care units and following discharge, (2) nutritional care of children with special health needs, and (3) nutritional care of adolescents including those with type 1 diabetes. Core training occurs at Riley Hospital, community public health clinics, and the Indiana State Board of Health central office in Indianapolis. The fellowship program accepts four to six dietitians/nutritionists annually. Although helpful, a master's degree is not required for fellowship eligibility. The Pediatric Nutrition Fellowship Program begins in August.

For further information, contact the Pediatric Nutrition Fellowship Program, Nutrition and Dietetics Program, IUPUI, Ball Residence Hall 112, 1226 West Michigan Street, Indianapolis, IN 46202-5180, (317) 278-0933, Fax: (317) 278-3940, E-mail: krickard@iupui.edu.

Courses in Nutrition and Dietetics

"P" refers to a course prerequisite and "C" to a course that must be taken concurrently.

AHLT N265 Nutrition and Exercise (3 cr.) This course will allow the student to apply the principles of physiology, chemistry, and biology to describe the role of nutrition and exercise in the human body and to explore the interrelated and protective role of nutrition and exercise in wellness, health promotion, and disease prevention.

AHLT N270 Nutritional Sciences and Health (3 cr.) This course will allow the student to apply the principles of physiology, chemistry, and molecular biology to describe the role of nutrients within the body. Recommendations and guidelines to make personal food choices and create eating plans to support good health will be explored.

AHLT N544 Diet Therapy (2 cr.) P: Dietetic internship. Study of physiological and biochemical alterations that occur during disease states and their effect on nutritional requirements and methods of providing nutrients.

AHLT N546 Medical Lectures (cr. arr.) Lectures by professional staff and invited guests in the health care field.

AHLT N550 Human Nutritional Pathophysiology I (3 cr.) P: B500, F503 or BIOL 557, or consent of instructor. An integrated study of the biochemical and physiological aspects of human macronutrient metabolism with special reference to fundamental nutrition issues including determination of nutrient quality, nutrient interrelationships, and energy balance in the normal human adult and in common clinical problems.

AHLT N552 Human Nutritional Pathophysiology II (3 cr.) P: AHLT N550 or consent of instructor. A continuation of AHLT N550. An integrated study of the biochemical and physiological aspects of human fluid and micronutrient metabolism with special reference to nutritional pathophysiology involving fluid and micronutrient metabolism.

AHLT N560 Review of Nutrition Standards (3 cr.) Review of various nutrition standards including those of the United States, the United Kingdom, Canada, and the World Health Organization. Course includes a review of all cited literature for one of the nutrients listed in the Recommended Dietary Allowances.

AHLT N563 Recent Advances in Dietetics (2 cr.) P: Dietetic internship. Study of research methodology utilized in dietetics. Course includes critique of literature and preparation of research proposal.

AHLT N570 Pediatric Nutrition I (3 cr.) P: B500, BIOL 557, undergraduate metabolic nutrition course, or consent of instructor. An application of principles of physiology, biochemistry, and nutrition to the

specialized nutrient needs and nutritional care of healthy infants, children, and adolescents and those with the most common pediatric conditions/illnesses or disorders of broad nutritional significance.

AHLT N572 Advanced Pediatric Nutrition (3 cr.) P: AHLT N550, AHLT N570, or consent of instructor. An application of principles of physiology, biochemistry, and nutrition to the specialized nutrient needs and nutritional care of infants, both preterm and term, and patients with complex pediatric conditions/illnesses that have a significant nutritional component.

AHLT N590 Dietetic Internship (4-10 cr.) P: Dietetic internship. Supervised clinical experience in clinical and community nutrition and food service systems management. Course meets the requirements of the American Dietetic Association for the post-baccalaureate experience needed for dietetic registration. Previous admission into dietetic internship required. May be taken for a maximum of 23 credit hours. Not applicable to a graduate degree program.

AHLT N591 Seminar in Nutrition and Dietetics (1 cr.) Exploration of various topics and issues in nutrition. May be repeated for a maximum of 4 credits.

AHLT N593 Topics in Nutrition (1-3 cr.) P: Consent of instructor. Exploration of a selected topic in nutrition at an advanced level. May be repeated once for credit if topics differ.

AHLT N595 Readings in Nutrition (1-3 cr.) P: Consent of instructor. Individualized readings on topics not covered in regular course offerings.

AHLT N596 Clinical Dietetics (cr. arr.) Clinical study in specialized areas of dietetics. May be taken more than once with the consent of the department for a maximum of 15 credit hours.

AHLT N597 Management Issues in Dietetics (2 cr.) P: Dietetic internship. Advanced study in institutional and hospital dietetic management, including personnel, financial, operational, and regulatory issues.

AHLT N598 Research in Dietetics (cr. arr.) Original research as approved by the department.

Occupational Therapy

An educational program in occupational therapy is located on the Indiana University–Purdue University Indianapolis campus. The last baccalaureate class will be admitted for fall 2002 with an anticipated graduation date of August 2004. The program will then transition to post-baccalaureate entry level. For further information, contact the School of Allied Health Sciences at (317) 274-4702.

Description of the Profession Occupational therapy is the art and science of assisting people to do those activities/occupations that are important to them despite impairment, disability, or handicap. In this context, "occupation" refers to all of the activities that occupy people's time and give meaning to their lives, primarily: activities of daily living, work and productive activities, and play and leisure skills (AOTA, 1994). Occupational therapists can work in mental health, pediatric, geriatric, physical disability,

community wellness programs, or other specialty areas.

Graduates of the Program The baccalaureate degree program in occupational therapy is designed to prepare the graduate to meet professional standards for occupational therapy practice. Upon completion of the program, a graduate will be expected to demonstrate entry-level competence in basic knowledge and application of physical, behavioral, and medical sciences to the practice of occupational therapy. Graduates of the program will be able to sit for the national certification examination for the occupational therapist administered by the National Board for Certification in Occupational Therapy (NBCOT). After successful completion of this exam, the individual will be an Occupational Therapist, Registered (OTR).

Credential Required to Practice OTR, Occupational Therapist Registered.

Licensure Requirements to Practice All states have credentialing requirements. Graduates must take the responsibility to ascertain and conform to the specific credentialing requirements of the state in which they plan to practice. State credentialing requirements are usually based on the results of the NBCOT certification examination.

Bachelor of Science in Occupational Therapy at Indiana University-Purdue University Indianapolis

Program Director: Associate Professor Hamant

Associate Professors Emeriti: Lampert, Nathan, Simek

Assistant Professor: Worrell

Clinical Associate Professor: Kiel

Clinical Assistant Professor: Griswold

Lecturers: Chase, Janson, Swinehart, Troyer

Adjunct Assistant Professor: Feinberg, Stroup

Adjunct Instructor: Hamman, Troxell

Adjunct Lecturers: Atkins, Hale, Raisor, Yoder

EDUCATIONAL PROGRAM

Length of the Program Four years, if full time; two years (59 credit hours) of prerequisite course work plus 22 months of professional course work.

Structure of the Professional Program The academic and fieldwork portions of the curriculum are designed as full-time experiences.

Design of the Professional Curriculum Full-time students entering the Occupational Therapy Program will attend three academic semesters. There will be a summer clinical experience between the junior and senior years and a six-month fieldwork (clinical) experience beginning in January of the senior year. The curriculum content includes basic knowledge of occupational development; medical and psychiatric conditions; technical skills, occupational therapy theory and practice; interpersonal communication; creative problem solving; understanding human occupation as it relates to health and wellness; and beginning professional practice (Fieldwork Level I). Following the academic course work are two, three-month, full-time practice

experiences (Fieldwork Level II) to provide integration of the academic material and further prepare the student for entry into the profession. Fieldwork Level II must be completed within 24 months of completing all academic course work. The curriculum content contains all of the subject matter required in an accredited occupational therapy program and is organized to emphasize the occupational model.

Additional Cost In addition to regular university fees, students should expect to spend approximately \$1,400 on textbooks. Additionally, some courses have clinical fees that are assessed at the rate of \$30 per credit hour. Contact program for current cost sheet. Students should be prepared to assume living and travel expenses associated with fieldwork experiences in the spring semester of the senior year. Some assignments may be out of state.

Opportunity for Students to Work The class schedule for full-time occupational therapy students is rigorous; part-time employment during the evening or weekend hours is possible for some students during fall and spring semesters.

Program Facilities The Occupational Therapy Program offices are located on the third floor of Coleman Hall. Classrooms are located in Coleman Hall, Ball Residence, and other buildings on the Indianapolis campus.

Location of Fieldwork Sites Fieldwork Level I occurs in a variety of settings, including hospitals, rehabilitation centers, nursing homes, school systems, community sites, and other health and wellness facilities within Indiana. Fieldwork Level II is directed toward physical and psychosocial dysfunction and may be located throughout the United States depending on the student's individual assignment. Prior to starting fieldwork experience, students may be required to undergo drug testing and/or a criminal background check.

Accreditation The Occupational Therapy Program is fully accredited by the Accreditation Council for Occupational Therapy Education (ACOTE) of the American Occupational Therapy Association (AOTA) located at 4720 Montgomery Lane, P.O. Box 31220, Bethesda, MD 20824-1220. AOTA's phone number is (301) 652-AOTA. Applicants should be advised that as of January 1, 2007, Occupational Therapy educational programs will only be accredited at the post baccalaureate degree level.

ADMISSION General Information

Students accepted into the program must complete the school's and the following program admission requirements prior to the first day of classes. Admission to the professional program is competitive; therefore, completion of the prerequisites does not guarantee admission to the program.

Criteria Used for Selection of Class Cumulative grade point average and personal interview.

Class Size 50 each fall semester.

Specific Requirements

In addition to the School of Allied Health Sciences admission policies and procedures found at the

beginning of this section of the bulletin, the following admission policies apply to the Occupational Therapy Program.

Application Deadline November 1 of the year prior to desired entry into the program.

Total Number of Prerequisite Credit Hours 59 semester hours. Applicants must have completed a minimum of 30 credit hours, including six courses from the prerequisite list, including one laboratory science, by the time of application.

Distribution of Credit Hours in Specific Areas See prerequisites.

Limitations of Course Work Remedial courses do not count toward the 59 prerequisite credit hours and are not calculated in the cumulative grade point average.

Minimum Cumulative Grade Point Average Requirement In-state residents, 3.00 on a 4.00 scale. Out-of-state students, 3.30 on a 4.00 scale. This requirement is applied at the time of program application and must be maintained throughout the admissions process.

Fresh Start/Academic Bankruptcy/Repeated Courses The Indiana University Occupational Therapy Program adheres to the School of Allied Health Sciences Fresh Start Policy and the Repeated Courses Policy. In addition, the Occupational Therapy Program may grant Academic Bankruptcy for up to one academic year to students with a GPA of 2.00 or above. A student may use either the Fresh Start Policy or Academic Bankruptcy Policy, but not both, for purposes of admission. No requests for Fresh Start, Academic Bankruptcy, or Repeated Courses will be accepted after November 1.

Minimum Grade Requirement in a Stated Prerequisite Course C (2.00 on a 4.00 scale).

Interview A personal interview is required. However, if the number of applications to the program far exceeds the number of positions available, the program admissions committee reserves the right to limit the number of applicants to be interviewed to two times the number of positions available in the class. Selection of the candidates to be interviewed will be based solely on the cumulative grade point average. Interview topics are highlighted in an interview letter sent to all applicants.

Technical Standards In addition to School of Allied Health Sciences technical standards, the Occupational Therapy Program has developed program-specific technical standards. These standards are available upon request and are sent to all applicants selected to be interviewed.

Indiana Residents Preference Policy See School of Allied Health Sciences policy. Out-of-state candidates must have a cumulative grade point average of 3.30 on a 4.00 scale to be considered eligible.

Volunteer Experience Although volunteer experience is not required, it is recommended as very helpful in making a career choice.

**CURRICULUM—B.S. PROGRAM
Professional Program****Junior***Fall*

Fundamentals of Occupational Therapy AHLT T360	3 cr.
Occupation & Lifespan Development AHLT T365	3 cr.
Research in Occupational Therapy I, AHLT T367	1 cr.
Clinical Psychiatry AHLT T373	2 cr.
Common Medical Conditions AHLT T372	3 cr.
Functional Neuroanatomy AHLT T375	3 cr.
Total	15 cr.

Spring

Fieldwork Level I-A, Practicum AHLT T325	1 cr.
Occupational Performance, Area C Play/Leisure, AHLT T342	2 cr.
Occupational Therapy Process AHLT T361	2 cr.
Occupational Therapy for Children AHLT T362	4 cr.
Kinesiology for Occupational Therapy AHLT T376	3 cr.
Management of Occupational Therapy Services I AHLT T358	2 cr.
Occupational Performance—Area A, ADL AHLT T452	3 cr.
Research in Occupational Therapy II AHLT T368	1 cr.
Total	18 cr.

Summer I

Fieldwork Level I-A, Practicum Experience AHLT T325 (cont.) (May—1 week)	0 cr.
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Summer II

Fieldwork Level I-B, Practicum Experience AHLT T426 (August—1 week)	1 cr.
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Senior*Fall*

Fieldwork I-B; Pract. Exp. AHLT T426 (cont.)	0 cr.
Professional Writing in Occupational Therapy, AHLT T357	1 cr.
Group Process in Occupational Therapy AHLT T457	2 cr.
Occupational Performance—Area B, Work AHLT T343	2 cr.
Techniques of Splinting in Occupational Therapy AHLT T455	1 cr.
OT for Adults with Psychosocial Dysfunction AHLT T461	4 cr.
OT for Adults with Physical Disabilities AHLT T462	4 cr.
Multicultural & Ethical Issues in OT AHLT T464	2 cr.
Management of Occupational Therapy Services II AHLT T458	1 cr.
Total	17 cr.

Spring

Fieldwork Level II-A AHLT T495	6 cr.
Fieldwork Level II-B AHLT T496	6 cr.
(AHLT T495 and AHLT T496 are two three-month internships scheduled within the nine-month period from January of the senior year through the following September.)	
Total	12 cr.

Total Credits**63 cr.**

Students must successfully complete a first aid class and a professional CPR class that have written examinations prior to beginning Fieldwork Level II (AHLT T495, AHLT T496). If either of the classes is graded, the course grade must be acceptable according to the Occupational Therapy Program Performance Policies. The CPR course should be the Professional Rescuer or Healthcare Provider course, not the Community CPR course. If a documented physical problem makes a person incapable of performing the activities in either or both of these areas, the person must be able to pass the written examinations required in the course.

Scholarships In addition to financial assistance obtained through the IUPUI Office of Student Financial Aid, there are scholarship opportunities available through the Occupational Therapy Program.

Following admission into the Occupational Therapy Program, students may seek information from the program director regarding scholarship opportunities specific to occupational therapy.

Awards The program faculty will recommend students with superior academic performance for degrees awarded with distinction. The Carol D. Nathan Leadership Award is presented annually to a senior selected by the senior class and the faculty as having demonstrated outstanding leadership potential. The award is in recognition of Associate Professor Emerita Carol D. Nathan, former director of the Occupational Therapy Program.

Honors The Occupational Therapy program offers students the option of participating in an Honors Degree Program. Students may enter the honors program no later than the second semester of their first year in the program. The honors degree requires 12 hours of honors credit, distributed as follows: two theory courses, two techniques or media courses, and one course in the basic sciences. No more than two honors courses may be taken per semester. Students must earn no less than a B+ (3.5) in an honors course. Students seeking to graduate with honors must maintain a cumulative grade point average of 3.3 with a 3.5 grade point average in honors course work.

Graduation Requirements for a B.S. in Occupational Therapy Satisfactory completion of 122 credit hours: 59 prerequisite credit hours and 63 credit hours of professional courses. All course work must be completed in compliance with the program's and school's academic and professional policies.

For further information, contact Professor Cel Hamant, Program Director, Occupational

Therapy, IUPUI, Coleman Hall 316, 1140 W. Michigan Street, Indianapolis, IN 46202-5119, (317) 274-8006, E-mail: chamant@iupui.edu.

Courses in Occupational Therapy

"P" refers to a course prerequisite.

AHLT T325 Fieldwork Level I-A; Practicum Experience (1 cr.) P: AHLT T360. Fieldwork observation and practice of the occupational therapy skills and theory presented in theory and technique courses. Attendance at a weekly seminar is required.

AHLT T342 Occupational Performance, Area C—Play and Leisure Activities (2 cr.) Exploration of play/leisure as a primary occupational performance area. The focus for the course is from an occupational perspective and includes lecture/discussion and experiential activities.

AHLT T343 Occupational Performance, Area B—Work and Productive Activities (2 cr.) Exploration of work/productive activity as a primary occupational performance area. Uses hand and power tools, a variety of other work skills, and ergonomics as therapeutic occupational modalities.

AHLT T357 Professional Writing in Occupational Therapy (1 cr.) P: AHLT T360. Instruction and practice in professional documentation and writing for reimbursement, necessary in the practice of occupational therapy.

AHLT T358 Management of Occupational Therapy Services I (2 cr.) Study of the occupational therapist's role in service management and the health care system. Managerial functions and managed care are emphasized.

AHLT T360 Fundamentals of Occupational Therapy (3 cr.) Material presented as a foundation for the development of the clinical aspects of occupational therapy practice. Emphasis is on the philosophy of using occupation as a basis of treatment.

AHLT T361 Occupational Therapy Process (2 cr.) P: AHLT T360. Introduction to and relationship of professional values, principles of occupation, and therapeutic use of self to occupational therapy standards of practice.

AHLT T362 Occupational Therapy for Children (4 cr.) P: AHLT T360. Developmental approach to principles of occupational therapy evaluation and treatment of infants and children.

AHLT T365 Concepts of Occupation and Human Lifespan Development I (3 cr.) Investigation of the dynamic interrelationships among the biological, psychological, and sociological aspects of human development and their impact on occupational behavior and performance applicable from infancy through adulthood.

AHLT T367 Research in Occupational Therapy I (1 cr.) Examination and study of the research process and its implication and application in practice and academic settings.

AHLT T368 Research in Occupational Therapy II (1 cr.) Preparation for participation in the research process.

AHLT T372 Common Medical Conditions in Occupational Therapy (3 cr.) Review of major medical conditions including clinical description, etiology and pathology, medical/surgical management, treatment and prognosis.

AHLT T373 Clinical Psychiatry for Occupational Therapy (2 cr.) Review of major psychiatric disorders including clinical description, etiology, medical management, and treatment. Legal and pharmacological issues in psychiatry are presented.

AHLT T375 Functional Neuroanatomy (3 cr.) Major functional concepts of neuroanatomy presented in longitudinal systems with implications for abnormality and subsequent occupational therapy intervention.

AHLT T376 Kinesiology for the Occupational Therapist (3 cr.) Principles of human movement including analysis of biomechanics, joint structure and function, muscle physiology, and musculoskeletal function. An introduction is given to methods to improve movement quality in occupational performance.

AHLT T426 Fieldwork Level I-B; Practicum Experience (1 cr.) P: AHLT T325. Fieldwork observation and practice of the occupational therapy skills and theory presented in the theory and technique courses. Seminar attendance is required.

AHLT T452 Occupational Performance, Area A-ADL (3 cr.) Lecture and laboratory provide the student with supervised learning experiences that emphasize maximum patient/client independence in the occupational performance area of activities of daily living (ADL and IADL).

AHLT T453 Topics in Occupational Therapy (1-5 cr.) Permission of instructor required. Selected topics in occupational therapy offered by occupational therapy faculty. Students may repeat this course as long as the topic changes each time it is taken.

AHLT T455 Techniques of Splinting in Occupational Therapy (1 cr.) Lecture and laboratory course that provides supervised experiences in the construction of splints and their use as a therapeutic modality.

AHLT T457 Group Process in Occupational Therapy (2 cr.) P: AHLT T373. Principles and concepts of group process related to occupational therapy practice.

AHLT T458 Management of Occupational Therapy Services II (1 cr.) P: AHLT T358 and senior standing in the professional program or instructor's permission. Study of occupational therapy reimbursement, credentialing, and other professional activities.

AHLT T461 Occupational Therapy for Adults with Psychosocial Dysfunction (4 cr.) P: AHLT T373. Introduction to and application of selected theories, frames of reference, and paradigms from

occupational therapy, psychiatry, and psychology to the occupational therapy process specific to the treatment of adolescents and adults with mental illness.

AHLT T462 Occupational Therapy for Adults with Physical Disabilities (4 cr.) P: AHLT T372 and AHLT T375. Study and application of the principles of occupational therapy evaluation and treatment to adolescents and adults with physical disabilities.

AHLT T464 Multicultural and Ethical Issues in Occupational Therapy Practice (2 cr.)

Examination of the occupational therapy ethics code and ethical decision-making in practice settings. Knowledge of cultural and ethnic development and occupational behaviors. Sensitivity and approaches to the practice of occupational therapy with specific and diverse multicultural populations in the United States.

AHLT T480 Electives in Occupational Therapy (1-3 cr.) P: Permission of instructor required; second year or senior standing in the professional program. Special electives in occupational therapy offered by occupational therapy faculty and clinicians. Students may repeat this course as long as the topic changes each time it is taken.

AHLT T495 Fieldwork Level II-A (6 cr.) P: Successful completion of all professional courses. A three-month internship in psychosocial or physical dysfunction occupational therapy facilities.

AHLT T496 Fieldwork Level II-B (6 cr.) P: Successful completion of all professional courses. A three-month internship in psychosocial, physical dysfunction or other occupational therapy facilities.

AHLT T497 Fieldwork Level II-C (Optional) (4-6 cr.) P: Successful completion of AHLT T495 and AHLT T496. Six- to twelve-week optional experience providing occupational therapy students an opportunity to specialize in a selected practice area (e.g., community, pediatrics, geriatrics, or hand rehabilitation).

AHLT T580 Graduate Electives in Occupational Therapy (2-4 cr.) Graduate electives in occupational therapy offered by occupational therapy faculty and clinicians. Students may repeat this course as long as the topic changes each time it is taken.

Paramedic Science

For information concerning the Associate of Science in Paramedic Science, see Emergency Medical Services.

Physical Therapy

An educational program in physical therapy is located on the Indiana University–Purdue University Indianapolis campus.

Description of the Profession As members of the health care team, physical therapists help restore clients to normal functioning of the musculoskeletal and other systems through interventions utilizing therapeutic exercise, physical agents, and assistive devices. The client's physical therapy needs are determined through evaluation and examination of muscle strength and tone, joint status, posture,

sensory status, functional mobility, exercise tolerance as it relates to cardiorespiratory status, skin condition, pain, and other medical conditions that impair physical function. Physical therapists are concerned with health promotion and disease prevention as well as restoration of function following disease, injury, or loss of a body part. In addition to patient care, the physical therapist participates in administrative, teaching, and research activities and provides consultative services. Physical therapists work in hospitals, outpatient facilities, industrial clinics, governmental and voluntary health agencies, educational settings, extended care facilities, and private practice settings.

Graduates of the Program The educational experiences of the Physical Therapy Program curriculum are designed to graduate a physical therapist with skills as a generalist. Graduates of the program are eligible to apply for licensure in the state in which they will practice.

Credential Required to Practice P.T., Physical Therapist.

Licensure Requirements to Practice All states require that an individual graduate from an accredited physical therapy program and successfully complete the national physical therapy licensure examination in order to practice as a physical therapist.

Doctor of Physical Therapy at Indiana University–Purdue University Indianapolis

Program Director: Associate Professor Quillen

Professors Emeritae: Ekstam, Ladue

Professors: MacKinnon, Oldridge

Associate Professors: Hartsell, Porter

Assistant Professor: Chapman

Clinical Assistant Professors: Bainbridge, Carey

Visiting Assistant Professor: Dunning

EDUCATIONAL PROGRAM

Length of the Program The course of study is 35 months (98 graduate credit hours) of graduate professional course work.

Structure of the Program The program is presented in a full-time, day format only.

Design of the Professional Curriculum The physical therapy curriculum is organized so that the lecture and laboratory course work is integrated with patient care experiences. Full-time clinical education experiences of varying length occur throughout the course of study. The Physical Therapy Program course of study develops an understanding of normal and abnormal physical structure and function. The curriculum focuses on the management of patient problems rather than procedures. The graduate of the Physical Therapy Program demonstrates competencies in physical therapy and the basic skills of research, administration, and teaching. Additionally, the graduate shows the ability and interest to continue professional development.

Opportunity for Students to Work Because of the intense nature of the program, students are not encouraged to seek outside employment during their enrollment.

Additional Cost In addition to Physical Therapy Program tuition and university fees, students should expect to pay program-related expenses. Contact the program for a current cost sheet.

Facilities Physical Therapy Program offices are located in Coleman Hall. Lecture and laboratory classes are located in Ball Hall, Long Hospital Building, and other locations on the IUPUI campus.

Accreditation The Doctor of Physical Therapy Program has been approved by the Indiana University Board of Trustees and the Indiana Commission for Higher Education (ICHE). Indiana University has been granted Interim Accreditation for the post-baccalaureate professional education program by the Commission on Accreditation in Physical Therapy Education (CAPTE).

ADMISSION

General Information

Students accepted into the program must complete the School of Allied Health Sciences and the following Physical Therapy Program specific admission requirements prior to the first day of classes. Admission to the professional program is competitive; therefore, completion of the prerequisites does not guarantee admission to the program.

Criteria Used for Selection of Class Admission into the School of Allied Health Sciences Doctor of Physical Therapy Program is based on the overall grade point average, the mathematics and science prerequisite courses grade point average, student's suitability for physical therapy profession as reported by volunteer experience supervisor evaluation of generic abilities, and a statement of personal values.

Class Size 36 students each fall semester.

Specific Requirements

In addition to the School of Allied Health Sciences admission policies and procedures found at the beginning of the bulletin, the following admission policies apply to the Physical Therapy Program.

Application Deadline June 1 prior to anticipated August entry.

Total Number of Prerequisite Credit Hours

Applicants may have no more than two (2) DPT Program prerequisite courses unfinished at the time of program application (see below). **NO WAIVERS FOR DEGREE COMPLETION OR COURSE PREREQUISITES WILL BE GRANTED BY THE PHYSICAL THERAPY PROGRAM.**

Limitations of Course Work The prerequisite credit hours in human anatomy, human physiology, chemistry, and physics must be completed no more than seven years prior to date of entry.

Minimum Cumulative Grade Point Average 3.0 on a 4.0 scale. The minimum grade point average must be met at the time of application and maintained until admission.

Minimum Specific Grade Point Average 3.0 on a 4.0 scale in all credit hours attempted in mathematics and science prerequisite courses. The

minimum grade point average must be met at the time of application and maintained until admission.

Minimum Grade Requirement in a Stated Prerequisite Course C (2.0 on a 4.0 scale).

Technical Standards See School of Allied Health Sciences technical standards.

Medical Requirements Basic immunizations as determined by Student Health Services must be completed by the first day of classes. Students must demonstrate proof of health insurance prior to entry into the program and must maintain health insurance throughout their enrollment.

Volunteer Experience Students must complete the equivalent of a one-day (8 hours) volunteer observational experience at two or more different types of Physical Therapy treatment facilities and have the supervising physical therapist complete the Program's student evaluation form.

Additional Requirements Accepted applicants, conditionally accepted applicants and applicants on the alternate list must complete all requirements for their baccalaureate degree prior to enrolling in the Doctor of Physical Therapy Program and maintain the following:

- a 2.0 grade point average in each semester following notification of their status;
- a minimum cumulative grade point average of 3.0 on a 4.0 scale in all attempted credit hours; and,
- a minimum grade point average of 3.0 on a 4.0 scale in all credit hours attempted in mathematics and science prerequisite courses.

International Student Applicants There are special application procedures for those who are not citizens of the United States or who have had their previous schooling outside of the United States. International student applicants interested in the Doctor of Physical Therapy Program should obtain an International Application packet from the IUPUI Office of International Affairs. Information and an International Application packet may be downloaded from the Web at www.international.iupui.edu. Because of the extra procedures required in evaluating foreign credentials, the application fee for international students is currently \$55, in addition to DPT Program application fee. International student applicants, except those whose native language is English, are expected to submit results of the Test of English as a Foreign Language (TOEFL). The TOEFL is given worldwide throughout the year. IUPUI's school code number for the TOEFL application is 1325. The Physical Therapy Program faculty has established a minimum TOEFL test score of 600 paper-based/250 computer-based for Program eligibility. All newly admitted international students are also required to take the IUPUI English (ESL) examination administered by the IUPUI ESL Program and Office of International Affairs prior to registration for class. Students are required to take any ESL courses that are deemed to be necessary by this testing until they have fulfilled university and program requirements for English proficiency.

CURRICULUM

Prerequisites

Prior to entering the DPT Program, students must have completed requirements for their baccalaureate degree and the following prerequisite courses. Students should consult with their academic advisers for appropriate courses and semester sequence in order to complete prerequisites. Listed credit hours are minimums.

Humanities/Social Sciences	6 cr.
(Two courses such as sociology, anthropology, art, history, or philosophy.)	
Introductory Statistics	3 cr.
Human Anatomy—	
one course with laboratory	3-4 cr.
Human Physiology—	
one course with laboratory	3-4 cr.
Chemistry—two courses with laboratory	8 cr.
Physics—two courses with laboratory	8 cr.
(Note: Level of the anatomy, physiology, chemistry, and physics courses must be appropriate for science majors.)	
Psychology—Introductory	3 cr.
Human Lifespan Development	3 cr.

Students must demonstrate proficiency in medical terminology prior to entering the professional program. Students will need to be competent writers and demonstrate computer literacy including e-mail, Internet, database searches, spreadsheet, and word processing capabilities.

Professional Program

	<i>Credit Hours</i>
Semester 1, Year 1, Fall Semester	
P511 Clinical Decision Making	1
P512 Muscle Physiology	2
P513 Functional Anatomy and Clinical Biomechanics	3
D850 Gross Anatomy	8
	<hr/> 14
Semester 2, Year 1, Spring Semester	
P646 Physical Agent/Modality Interventions	2
P515 Introduction to Physical Therapy Examination and Interventions	6
P534 Introduction to Motor Sciences	2
P530 Medical Conditions and Pathophysiology	4
	<hr/> 14
Semester 3, Year 1, Summer Session 1 (8 weeks)	
P514 Foundations of Research I	2
P643 Psychosocial Dimensions of Physical Therapy Practice	2
P570 Pharmacology for Physical Therapists	3
	<hr/> 7
Semester 4, Year 2, Fall Semester	
D852 Neuroscience and Clinical Neurology	5
P532 Legal and Ethical Issues in Physical Therapy	2
P533 Lifespan Motor Development	2
P526 Physical Therapy Examination/Interventions II	4
P645 Foundations of Research II	2
	<hr/> 15

Semester 5, Year 2, Spring Semester

P524 Cardiopulmonary Practice Patterns	3
P641 Neuromuscular Practice Patterns I	4
P541 Musculoskeletal Practice Patterns I	4
P650 Integumentary Practice Patterns	2
P680 Health Promotion and Community Outreach	2
	<hr/> 15

Semester 6, Year 2, Summer Session 2

P599 Clinical Education I (6 Weeks)	3
	<hr/> 3

Semester 7, Year 3, Fall Semester

P622 Musculoskeletal Practice Parameters II	5
P642 Neuromuscular Practice Patterns II	5
P660 Special Topics in Physical Therapy	3
P667 Foundations of Research III	1
P664 Administration and Management of Physical Therapy Services	3
	<hr/> 17

Semester 8, Year 3, Spring Semester

P695 Clinical Education II (12 Weeks)	6
P696 Clinical Education III (6 Weeks)	3
	<hr/> 9

Semester 9, Year 3, Summer Session 1

P697 Clinical Education IV (6 Weeks)	3
P675 Capstone Seminar	1
	<hr/> 4

Total Credits 98

Students must successfully complete and maintain current Health Care Professional Level CPR certification prior to beginning clinical education experiences.

Scholarships The Constance Brown Memorial Scholarship, established in memory of a deceased classmate, is awarded to an outstanding first year physical therapy student. The Frances C. Ekstam Scholarship, in honor of the Physical Therapy Program's first director, is awarded to an outstanding second year physical therapy student.

Awards The program recommends to the university superior academic students for degrees awarded with distinction. The William D. Porter Award is presented annually to a program graduate selected by faculty as having demonstrated excellence in both the study and clinical application of neurological rehabilitation techniques. The award is in recognition of Mr. William D. Porter, who contributed to the education of innumerable Indiana University physical therapy students through his textbook photographs and classroom audiovisual materials.

Graduation Requirements Satisfactory completion of 98 graduate credit hours including clinical education. All course work must be completed in compliance with the program and school's academic and professional policies.

For further information, contact Professor William S. Quillen, Director, Physical Therapy Program, IUPUI, Coleman Hall 120, Indianapolis, IN 46202-5119. Telephone (317) 278-1875.

Courses in Physical Therapy

P511 Clinical Decision Making (1 cr.) An overview of the profession of physical therapy and a framework for the process of clinical decision-making. Includes the role of physical therapy in contemporary health care delivery, the disablement model and an introduction to the APTA *Guide to Practice* as components of the clinical reasoning process.

P512 Muscle Physiology (2 cr.) Essential concepts of muscle physiology critical to the scientific development and application of physical therapy interventions; includes energy transfer during exercise, nutritional considerations, exercise and functional capacity evaluation and body composition.

P513 Functional Anatomy and Clinical Biomechanics (3 cr.) Integration of foundational knowledge of gross anatomy with structure and function of the neuromusculoskeletal system and human motion. Includes the study of the concepts of biomechanics, joint structure and function as they apply to physical therapy interventions.

P514 Foundations of Research I (2 cr.) Introduction to clinical research methodology and critical interpretation of the professional literature.

P515 Introduction to Physical Therapy Examination and Interventions (6 cr.) First of two courses covering examination, evaluation and intervention aspects of physical therapy practice. Emphasis is on history taking, systems review, functional examination and intervention, and documentation.

P524 Cardiopulmonary Practice Patterns (3 cr.) Provides the essential knowledge base for development of exercise prescriptions for well populations and for physical therapy interventions for patients with cardiopulmonary pathologies or dysfunctions.

P526 Physical Therapy Examination and Interventions II (4 cr.) The second of two courses covering examination, evaluation and intervention aspects of physical therapy practice. Regional application is emphasized along with corresponding documentation.

P530 Medical Conditions and Pathophysiology (4 cr.) Overview of pathophysiology and medical management for common disorders of the endocrine, immune, neurological, genitourinary and gastrointestinal systems. Included are fundamental principles of pharmacology and diagnostic imaging as utilized in medical management.

P532 Legal and Ethical Issues in Physical Therapy (2 cr.) Includes essential information related to ethical, legal and professional practice regulations and standards of care. Interpersonal communication skills for the healthcare environment are also presented.

P533 Lifespan Motor Development (2 cr.) Overview of human neuromusculoskeletal development across the lifespan.

P534 Introduction to Motor Sciences (2 cr.) Principles and concepts of motor learning and motor control for the development of physical therapy interventions.

P541 Musculoskeletal Practice Patterns I (4 cr.) Physical therapy management of patients with impaired posture, joint mobility, motor function, and muscle performance. Integrates previous coursework involving evaluation and interventions.

P570 Pharmacology for Physical Therapists (3 cr.) Survey of contemporary pharmacology including pharmacokinetic principles with special emphasis on the relation of drug therapy to therapeutic interventions provided by physical therapists.

P599 Clinical Education I (3 cr.) Initial full-time clinical experience of 6 weeks duration. This course will serve as the introduction to clinical integration of physical therapy knowledge and skills. Students will be assigned to specific sites.

P622 Musculoskeletal Practice Patterns II (4 cr.) Physical therapy management of patients with impaired joint mobility, motor function, muscle performance associated with spinal dysfunction, connective tissue disorders, trauma and surgical procedures.

P641 Neuromuscular Practice Patterns I (4 cr.) Physical therapy management of individuals with motor and sensory integration dysfunctions associated with peripheral nerve injuries, polyneuropathies and spinal cord injury.

P642 Neuromuscular Practice Patterns II (5 cr.) Physical therapy management of individuals throughout the lifespan with supraspinal central nervous system disorders.

P643 Psychosocial Dimensions of Physical Therapy Practice (2 cr.) Social, psychological and behavioral components of patient-therapist interactions are illustrated including grief, loss, motivation, social support and cultural influences amongst diverse patient populations.

P645 Foundations of Research II (2 cr.) Development, approval and generation of the proposal for the review of the literature related to a specific topic in patient outcomes assessment or other approved area.

P646 Physical Agent—Modality Interventions (2 cr.) Includes both theory and application of thermal, acoustic, infrared and electrotherapeutic physical agents utilized in physical therapy interventions.

P650 Integumentary Practice Patterns (2 cr.) The physical therapy management of the integumentary system with special emphasis on physical therapy interventions for burns and various types of wounds.

P660 Selected Topics in Physical Therapy Practice (3 cr.) Introduction to emerging physical therapy practice patterns in such areas women's health, occupational health, chronic metabolic and

immunologic diseases and cognitive and emotional disorders.

P664 Administration and Management of Physical Therapy Services (3 cr.) The administration and management of physical therapy services within the context of multiple types of healthcare systems.

P667 Foundations of Research III (1 cr.) Mentored seminar for the completion of a review of the literature on an approved topic and preparation for presentation of the final product.

P675 Capstone Seminar (1 cr.) Capstone seminar experience integrating classroom and clinical learning. Presentations mentored by clinical and academic faculty will be required.

P680 Health Promotion and Community Outreach (2 cr.) Essential concepts related to the roles of physical therapists in prevention and in the promotion of health, wellness and fitness. Course includes application of concepts through service component in selected community agencies.

P695 Clinical Education II (6 cr.) Full-time clinical experience of 12 weeks duration, which provides students the opportunity to apply theory and skills in physical therapy interventions with specific patient populations.

P696 Clinical Education III (3 cr.) Full-time clinical experience of 6 weeks duration, which provides students the opportunity to apply theory and skills in physical therapy interventions with specific patient populations.

P697 Clinical Education IV (3 cr.) Full-time clinical experience of 6 weeks duration, which provides students the opportunity to apply theory and skills in physical therapy interventions with specific patient populations.

Radiation Therapy

Educational programs in radiation therapy are located on the Indiana University–Purdue University Indianapolis and Indiana University Northwest (Gary) campuses.

Description of the Profession Radiation therapy involves the use of different forms of ionizing radiation for the treatment of benign and malignant tumors. Radiation therapists administer the prescribed dose of ionizing radiation to specific sites of the patient's body as directed by the physician. They operate varied types of equipment, including high energy linear accelerators, and work with radioactive materials. In addition, radiation therapists observe the clinical progress of the patient undergoing radiation therapy, observe the first signs of any complication, and determine when treatment should be withheld until a physician may be consulted.

Graduates of the Program The Radiation Therapy Program is designed to prepare graduates to meet the scope of practice standards for radiation therapy. Upon completion of the program, graduates are eligible to take the radiation therapy certification examination given by the American Registry of

Radiologic Technologists (ARRT). Having successfully passed this exam, certificate holders are classified as Registered Radiation Therapists, R.T.(T) (ARRT).

Licensure Required to Practice Licensure of radiation therapists is not required in Indiana, but licensure requirements are mandated in some states.

Bachelor of Science in Radiation Therapy at Indiana University–Purdue University Indianapolis

Medical Advisor: Professor Randall

Program Director: Assistant Professor Dunn

Clinical Assistant Professor: Schneider

EDUCATIONAL PROGRAM

Length of the Program The radiation therapy program is a four-year baccalaureate degree program and has two tracks: one for the nonradiographer and one for the radiographer. For the nonradiographer, the program is composed of 50 credit hours of prerequisite and general-education requirements and a 22-month professional core in the junior and senior years. For the radiographer, the program includes general-education requirements and a 20-month professional core.

Structure of the Program The classroom and clinical experiences are provided Monday through Friday from 8 a.m. to 4:30 p.m. with continuous enrollment during the professional core.

Opportunity for Students to Work Students often seek employment in part-time positions outside the program, which must be balanced with evening study.

Additional Cost In addition to regular university tuition and fees, students should expect to pay program-related expenses. Contact the program for a current cost sheet.

Program Facilities The Radiation Therapy Program offices are located in Ball Residence, Rooms 119 and 120. Classrooms and laboratories are located in Coleman Hall, in radiation oncology departments of area hospitals, and in other buildings on the Indiana University–Purdue University Indianapolis campus.

Location of Clinicals The clinical practicums are provided at a variety of clinical sites located within a 60-mile radius of Indianapolis.

Accreditation The program is accredited by the Joint Review Committee on Education in Radiologic Technology, 20 North Wacker Drive, Suite 900, Chicago, IL 60606-2901.

ADMISSION—NON-RADIOGRAPHER General Information

Admission into the School of Allied Health Sciences radiation therapy program is based on an admission index that is composed of a cumulative grade point average, the mathematics and science grade point average, prerequisite courses grade point average, and an interview.

Specific Requirements

In addition to the School of Allied Health Sciences admission policies and procedures found at the beginning of this bulletin, the following admission policies apply to the radiation therapy program.

Application Deadline December 1 of the year prior to desired entry into the program.

Minimum Number of Prerequisite Credit Hours 50.

Minimum Cumulative Grade Point Average 2.50 on a 4.00 scale. This requirement is applied at the time of program application. Grades from remedial courses are not calculated in the grade point average of the prerequisite courses to determine the admission index.

Minimum Specific Grade Point Average Science and math grade point average of 2.30 and a 2.50 grade point average in stated prerequisite courses (on a 4.00 scale). This requirement is applied at the time of program application and must be maintained. Grades from remedial courses are not calculated in the mathematics and science grade point average to determine the admission index.

Minimum Grade Requirement in a Prerequisite Course C (2.00 on a 4.00 scale).

Interview A personal interview is required. However, if the number of applications to the program far exceeds the number of positions available, the program's admissions committee reserves the right to limit the number of applicants to be interviewed to two times the number of positions available in the class. Interviews are conducted in January.

Technical Standards See School of Allied Health Sciences policy.

Medical Requirements All required immunizations must be completed before the start of the program. Verification of immunizations and the health form must be submitted during orientation.

Indiana Residents Preference Policy See School of Allied Health Sciences policy.

Volunteer Experience The student must observe in a radiation oncology facility prior to applying to the program.

CURRICULUM—NON-RADIOGRAPHER Prerequisites

The following prerequisite course of study must be completed to be eligible for admission into the professional program. Students should consult with their academic advisors for appropriate courses and semester sequence.

General-Education Areas

Verbal Communications (G)	2-3 cr.
Written Communications (G)	
(2 courses)	6 cr.
(Second writing course must focus on research and professional writing skills)	
Humanities Elective (G)	3 cr.

Social/Behavioral Science Elective (G)	3 cr.
Introductory Psychology (G)	3 cr.
College Algebra and Trigonometry (G)	5-6 cr.
General Physics (with lab) (G)	4-5 cr.
Human Anatomy (with lab)	4-5 cr.
Human Physiology	4-5 cr.
Medical Terminology	1 cr.
Introduction to Computers	2-3 cr.
Business/Education Electives	6 cr.

Suggested Electives (To bring total credits up to 50.) The number of elective courses will differ for each student to complete a total of 50 credit hours of prerequisite course work. Additional electives may be required, before or during the professional program, to complete a minimum of 122 credit hours of academic course work for graduation.

A Suggested Plan of Study

Freshman

Fall

Elementary Composition	3 cr.
Humanities	3 cr.
Algebra and Trigonometry	3 cr.
Human Anatomy	5 cr.
Total	14 cr.

Spring

Speech Communications or Interpersonal Communication	3 cr.
Algebra and Trigonometry	3 cr.
Introductory Psychology	3 cr.
Human Physiology	5 cr.
Total	14 cr.

Sophomore

Fall

English Composition II or Professional Writing Skills	3 cr.
General Physics (with lab)	4-5 cr.
Introduction to Computers	2-3 cr.
Business/Education Elective	3 cr.
Total	12-14 cr.

Spring

Social/Behavioral Science Elective	3 cr.
Business/Education Elective	3 cr.
Medical Terminology	1 cr.
Electives	4-5 cr.
Total	11-12 cr.

Professional Program—Non-Radiographer

Summer Session II (Junior)

Patient Care in Radiologic Sciences AHLT R104	2 cr.
Introduction to Clinical Radiography AHLT R103	2 cr.
Seminar: Ethics AHLT R207	1 cr.
Total	5 cr.

Fall (Junior)

Physics Applied to Radiology AHLT R250	3 cr.
Medical Imaging and Processing in Radiation Oncology AHLT J307	2 cr.
Simulation/Treatment Procedures AHLT J300	6 cr.
Clinical Dosimetry I AHLT J305	2 cr.
Clinical Experience: Basic AHLT J350	3 cr.
Total	16 cr.

Spring (Junior)

Radiation Oncology Techniques I AHLT J302	3 cr.
Clinical Dosimetry II AHLT J306	2 cr.
Radiation Oncology Patient Care AHLT J304	2 cr.
Quality Management in Radiation Oncology AHLT J404	3 cr.
Clinical Practicum I AHLT J351	3 cr.
Total	13 cr.

Summer Session I (Junior)

Radiation Oncology Techniques II AHLT J402	3 cr.
Clinical Practicum II AHLT J450	4 cr.
Total	7 cr.

Summer Session II (Senior)

Clinical Practicum III AHLT J451	6 cr.
Total	6 cr.

Fall (Senior)

Physics of Radiation Oncology I AHLT J400	2 cr.
Clinical Oncology I AHLT J303	3 cr.
Senior Project in Radiation Oncology AHLT J409	3 cr.
Clinical Practicum IV AHLT J452	5 cr.
Total	13 cr.

Spring (Senior)

Physics of Radiation Oncology II AHLT J401	2 cr.
Clinical Oncology II AHLT J403	3 cr.
Radiation and Cancer Biology AHLT J406	2 cr.
Clinical Practicum V AHLT J453	5 cr.
Total	12 cr.

ADMISSION—RADIOGRAPHER Specific Requirements

In addition to the School of Allied Health Sciences admission policies and procedures found at the beginning of this section of the bulletin, the following admission policies apply to the radiation therapy program.

Application Deadline December 1 of the year prior to desired entry into the program.

Minimum Number of Prerequisite Credit Hours

Satisfactory completion of general-education and technical specialty requirements.

Minimum Cumulative Grade Point Average

2.50 on a 4.00 scale; this requirement is applied at the time of program application. Grades from remedial courses are not calculated into the grade point average of the prerequisite courses to determine the admission index.

Minimum Specific Grade Point Average Science or math grade point average of 2.30 and a 2.50 grade point average in stated prerequisite courses (on a 4.00 scale); this requirement is applied at the time of program application and must be maintained. Students must attain a cumulative grade point average of 2.30 for all radiography courses. Grades from remedial courses are not calculated into the mathematics and science grade point average to determine the admission index.

Minimum Grade Requirement in a Stated Prerequisite Course C (2.00 on a 4.00 scale).

Interview A personal interview is required. However, if the number of applications to the program far exceeds the number of positions available, the program's admissions committee reserves the right to limit the number of applicants to be interviewed to two times the number of positions available in the class. Interviews are conducted in January.

Technical Standards See School of Allied Health Sciences policy.

Medical Requirements All required immunizations must be completed before the start of the program. Verification of immunizations and the health form must be submitted during orientation.

Indiana Residents Preference Policy See School of Allied Health Sciences policy.

Volunteer Experience Students must observe in a radiation oncology facility prior to applying to the program.

CURRICULUM—RADIOGRAPHER Prerequisites

The following prerequisite course of study must be completed for students to be eligible for admission into the professional program. Students should consult with their academic advisors for appropriate courses and semester sequence in order to complete prerequisites. Prerequisites may be taken at any accredited college or university. The code "G" indicates a course that meets the school's general-education requirements.

Verbal Communication (G)	2-3 cr.
Written Communication (G)	
(2 courses)	6 cr.
(Second course must focus on research and professional writing skills)	
Humanities Elective (G)	3 cr.
Social/Behavioral Science Elective	3 cr.
Introductory Psychology (G)	3 cr.
College Algebra and Trigonometry	5-6 cr.
General Physics (with lab) (G)	4-5 cr.
Human Anatomy (with lab)	4-5 cr.

Human Physiology	4-5 cr.
Medical Terminology	1 cr.
Introduction to Computers	2-3 cr.
Business/Education Elective	3 cr.

Technology Specialty Applicants must supply evidence of registration in radiography by the ARRT or completion of a radiography program accredited by the Joint Review Committee on Education in Radiologic Technology.

The technical specialty area is complete for applicants who have completed an associate or baccalaureate degree in radiography.

Students who received their technical training in noncredit awarding programs and who have full credentials in radiography (ARRT) may be awarded credit for their credentials and experiences and/or petition to test out of technical specialty courses.

Professional Program—Radiographer

Courses in the professional program are sequential and, therefore, must be taken in the order specified by the program faculty.

Fall (Junior)

Orientation to Radiation Oncology	
AHLT J301	4 cr.
Clinical Dosimetry I AHLT J305	2 cr.
Clinical Experience: Basic AHLT J350	3 cr.
Business or Education Elective	3 cr.
Total	12 cr.

Spring (Junior)

Radiation Oncology Techniques I AHLT J302	3 cr.
Radiation Oncology Patient Care AHLT J304	2 cr.
Quality Management in Radiation	
Oncology AHLT J404	3 cr.
Clinical Dosimetry II AHLT J306	2 cr.
Clinical Practicum I AHLT J351	3 cr.
Total	13 cr.

Summer Session I (Senior)

Radiation Oncology Techniques II AHLT J402	3 cr.
Clinical Practicum II AHLT J450	4 cr.
Total	7 cr.

Summer Session II (Senior)

Clinical Practicum III AHLT J451	6 cr.
Total	6 cr.

Fall (Senior)

Physics of Radiation Oncology I AHLT J401	2 cr.
Clinical Oncology I AHLT J303	3 cr.
Clinical Practicum IV AHLT J452	5 cr.
Senior Project in Radiation Oncology	
AHLT J409	3 cr.
Total	13 cr.

Spring (Senior)

Physics of Radiation Oncology II AHLT J401	2 cr.
Radiation and Cancer Biology AHLT J406	2 cr.
Clinical Oncology II AHLT J403	3 cr.
Clinical Practicum V AHLT J453	5 cr.
Total	12 cr.

Scholarships Some hospitals and employers offer financial assistance for students pursuing radiation therapy.

Graduation Requirements for Baccalaureate Degree To be eligible for graduation with a baccalaureate degree, students must successfully complete the general-education requirements, technical specialty (radiographers), and professional core in radiation therapy. They must also achieve clinical competency in each area identified in the clinical manual requirements.

For further information, contact Professor Donna Dunn, Director, Radiation Therapy Program, IUPUI, Coleman Hall 120, 1140 W. Michigan Street, Indianapolis, IN 46202-5119, (317) 274-1302, E-mail: dodunn@iupui.edu.

Courses in Radiation Therapy

"P" refers to a course prerequisite, and "C", to a course that must be taken concurrently.

AHLT J101 Orientation to Radiation Therapy (2-4 cr.) Overview of radiation oncology and the role of the radiation therapist. Basic radiation protection, patient care particular to the clinical setting, and equipment procedures and techniques. Discussions of computers and hyperthermia are also presented. The 2 credit offering is an option for radiographers only.

AHLT J181 Clinical Practicum I (2 cr.) Clinical experience in the use of equipment, simulations, and delivery of radiation treatments through observation and assistance under direct supervision of a radiation therapist.

AHLT J182 Clinical Practicum II (4 cr.) P: AHLT J181 or AHLT R290. Clinical experience in patient positioning, mould construction, patient simulation techniques, treatment delivery, dosimetry, treatment planning, patient care, and radiation protection under direct supervision of a radiation therapist.

AHLT J200 Technical Radiation Oncology (3 cr.) P: AHLT J101. Technical aspects of radiation oncology emphasizing clinical utilization of simulators and treatment machines. Presentations will include distinctive properties of several pathology setup considerations, contouring methods, auxiliary equipment, and basic hand calculations.

AHLT J201 Clinical Radiation Oncology I (3 cr.) P: AHLT J101. Fundamental clinical practice in radiation oncology to include the roles and principles of tumor pathology and surgical, radiation, and medical oncology. Malignant conditions, etiology, methods of treatment, patient prognosis, treatment results, and effects of combined therapies are presented. Student case presentations required.

AHLT J202 Clinical Radiation Oncology II (3 cr.) P: AHLT P201. Fundamental clinical practice in radiation oncology: malignant conditions, etiology, methods of treatment, patient prognosis, treatment results, and effects of combined therapies. Student case studies required.

AHLT J203 Treatment Planning (3 cr.) P: AHLT J200. Concepts of clinical dosimetry and treatment planning. Delivery methods, to include single- and multiple-beam techniques, are discussed. Tumor localization, dose calculations, and summation of isodose curves are performed.

AHLT J204 Quality Assurance and Radiation Protection (3 cr.) P: AHLT R260. Identification of the team approach to quality assurance and the principles and concepts. Implementation of methods for quality control is discussed. Practical radiation protection for the radiation therapist will be presented.

AHLT J250 Physics of Radiation Therapy I (3 cr.) P: AHLT R250. Fundamental principles of the physical qualities of radiation and atomic and nuclear theory. To include presentations on radiation therapy equipment measurement and quality of radiation and measurement of absorbed dose and calculation techniques.

AHLT J251 Physics of Radiation Therapy II (3 cr.) P: AHLT J250. Emphasizing the principles of radioactivity, radiation detection, measurement devices, equipment calibration, brachytherapy, and calibration techniques. Principles and concepts of radiation protection are discussed.

AHLT J281 Clinical Practicum III (4 cr.) P: AHLT J182. Clinical experience in patient positioning, mould construction, patient simulation techniques, treatment delivery, dosimetry, treatment planning, patient care, and radiation protection under the direct supervision of a radiation therapist.

AHLT J282 Clinical Practicum IV (4 cr.) Clinical experiences in patient positioning, mould construction, patient simulation techniques, treatment delivery, treatment planning, patient care, and radiation protection under supervision of a radiation therapist.

AHLT J300 Simulation/Treatment Procedures (6 cr.) P: AHLT R103, AHLT R104, and AHLT R185. Lecture and laboratory sessions emphasizing the clinical utilization of simulators and treatment machines.

AHLT J301 Orientation to Radiation Oncology (4 cr.) P: R.T.(R). An overview of radiation oncology and the role of the radiation therapist. Presentations will orient students to the physical and biological basis of radiation oncology equipment, procedures, tumor pathology, and patient interaction.

AHLT J302 Radiation Oncology Techniques I (3 cr.) P: R.T.(R) or AHLT R102, J300, and J350. Lecture and laboratory sessions presenting concepts of treatment-planning techniques of head, pelvis, spine, lung, and brain. To include implant localization techniques.

AHLT J303 Clinical Oncology I (3 cr.) P: R.T.(R) or AHLT R102, and AHLT J300. Examines the roles and principles of tumor pathology, surgical oncology, radiation oncology, and medical oncology. To include the characteristics, growth patterns, and treatment modalities utilized for tumors of the lung and central nervous system.

AHLT J304 Radiation Oncology Patient Care (2 cr.) P: R.T.(R) or AHLT R104. Concepts of radiation oncology patient care, including considerations of patients' physical and psychological condition. Factors influencing patients' general health during and following a course of radiation therapy treatments will be identified.

AHLT J305 Clinical Dosimetry I (2 cr.) Review of fundamental mathematics concepts as they relate to practical dosimetry and performing routine calculations pertaining to patient set-up and treatment.

AHLT J306 Clinical Dosimetry II (2 cr.) P: AHLT J305. Development of computer treatment planning skills in radiation oncology.

AHLT J307 Medical Imaging and Processing in Radiation Oncology (2 cr.) Fundamentals of radiologic exposure techniques, latent image formation, and processing of radiographs utilized in radiation oncology.

AHLT J350 Clinical Experience: Basic (3 cr.) P: AHLT R103 and AHLT R104. Clinical observation and assistance in the clinical skills of radiation therapy technology under the direct supervision of a registered radiation therapist or equivalent.

AHLT J351 Clinical Practicum I (3 cr.) P: R.T.(R) or AHLT J350. Clinical application of patient positioning immobilization, block fabrication, patient simulation techniques, treatment delivery, dosimetry, treatment planning, patient care management, and radiation protection under the direct supervision of a registered radiation therapist or equivalent.

AHLT J400 Physics of Radiation Oncology I (2 cr.) P: R.T.(R) or AHLT R250; MATH 147 and 148 or MATH 150; PHYS P201 and P218. Fundamental principles of the physical quantities of radiation and atomic and nuclear theory. To include discussions of radiation oncology equipment.

AHLT J401 Physics of Radiation Oncology II (2 cr.) P: AHLT J400. Continuation of J400 with emphasis on the interactions of ionizing radiation with matter; radiation detection and measurement devices; radiation units; equipment calibration; brachytherapy; and calculation techniques. Principles and concepts of radiation protection are discussed.

AHLT J402 Radiation Oncology Techniques II (3 cr.) P: AHLT J302. Lecture and laboratory sessions present concepts of treatment-planning techniques of breast, esophagus, mantle and inverted-Y, pituitary, total body and hemi-body, and common palliative portals.

AHLT J403 Clinical Oncology II (3 cr.) P: R.T.(R) and AHLT J303 or AHLT R102, AHLT R103, AHLT R104, AHLT R185, AHLT J300, and AHLT J303. Examines the characteristics, growth patterns, and treatment modalities utilized for tumors of the female genital, urological, male genital, breast, head and neck, bone and soft tissue, hematopoietic, alimentary tract, lymphorecticular, and pediatric sites. Student case presentations required.

AHLT J404 Quality Management in Radiation Oncology (3 cr.) P: J300 or J301, J305, and J350. Identification and application of a comprehensive quality management program in a radiation oncology facility. Includes discussion on the operations and functions of a radiation oncology facility with emphasis on quality improvement techniques.

AHLT J406 Radiation and Cancer Biology (2 cr.) Emphasis on the modern principles of cellular and molecular biology as they relate to normal and cancer cell response both in vitro and in vivo to various radiation types, i.e., X/gamma rays, neutrons, and charged particles. Topics include dose time, fractionation, repair, tumor kinetics, hyperthermia, and radiation protection.

AHLT J409 Senior Project in Radiation Oncology (3 cr.) Individual research in radiation oncology. Research proposal requires the approval of the program director.

AHLT J450 Clinical Practicum II (4 cr.) P: AHLT J351. Clinical application of patient positioning immobilization, block fabrication, patient simulation techniques, treatment delivery, treatment planning, patient care management, and radiation protection under the direct supervision of a registered radiation therapist.

AHLT J451 Clinical Practicum III (6 cr.) P: AHLT J450. Clinical application of patient positioning immobilization, block fabrication, patient simulation techniques, treatment delivery, dosimetry, treatment planning, patient care management, and radiation protection under the direct supervision of a registered radiation therapy technologist.

AHLT J452 Clinical Practicum IV (5 cr.) P: AHLT J451. Clinical application of patient positioning immobilization, block fabrication, patient simulation techniques, treatment delivery, patient care management, and radiation protection under the direct supervision of a registered radiation therapist.

AHLT J453 Clinical Practicum V (5 cr.) P: AHLT J452. Clinical application of patient positioning immobilization, block fabrication, patient simulation techniques, treatment delivery, dosimetry, treatment planning, patient care management, and radiation protection under the direct supervision of a registered radiation therapist.

Radiography

Educational programs in radiography are located on the following Indiana University campuses: Indiana University–Purdue University Indianapolis, Indiana University Northwest (Gary), Indiana University South Bend, and Indiana University–Purdue University Fort Wayne.

A program is being developed at Indiana University Kokomo. Contact Dr. Robert Roales, Chairperson of the Division of Allied Health Sciences on the Kokomo campus, for further information, (765) 455-9371.

Description of the Profession Radiologic technology is a science involving the medical use of X-rays in the diagnosis of disease. A radiologist is a

physician specializing in this science, and a radiologic technologist (radiographer) is the technical assistant to the radiologist. Radiographers make up the largest group of imaging professionals. Their principal duties consist of performing X-ray examinations of patients. They also assist in fluoroscopic examinations and in special radiographic procedures. Tasks performed by radiographers vary. Radiographers must be able to handle seriously ill and injured patients to obtain the maximum amount of information without injury to the patient and with the least amount of pain and discomfort from the examination. They may assist the radiologist in some complex procedures, often involving the injection of opaque media through needles or catheters. Radiographers must be well trained and experienced in aseptic techniques, requiring skills often comparable to those of nurses in some specialties. Most technologists are employed in hospitals, clinics, and physicians' offices.

Graduates of the Program Graduates receive an associate of science degree and are eligible to take the certification examination of the American Registry of Radiologic Technologists (ARRT) to become certified as a Registered Technologist, Radiography, R.T.(R).

Credential Required to Practice R.T.(R) Registered Radiographer.

Indiana Certification Requirements to Practice State certification is required to operate an X-ray machine. The state accepts the ARRT registry for certification.

Associate of Science in Radiography at Indiana University–Purdue University Indianapolis

Program Director: Associate Professor Hernandez

Medical Advisor: Professor Cohen

Associate Professors: Baker, Kosegi, Long, Rafert

Assistant Professors: Kehrein

Assistant Clinical Professors: Cox, Robinson

Clinical Lecturer: DeVore

EDUCATIONAL PROGRAM

Length of the Program A new class begins in late June of each year (summer session two at IUPUI) and continues for 22 months, including all summer sessions.

Structure of the Program The two-year curriculum for radiography is based on a combination of professional courses, general-education courses, and clinical experience. Professional classes and clinical experience are scheduled from 8 a.m. to 4 p.m., Monday through Friday. Students are also required to participate in clinical experience on 5 Saturdays, during approximately four weeks of evening rotations and one holiday during the 22-month period. Indiana University holidays are observed. The schedule of classes and clinical experiences follow the IUPUI academic calendar. Vacations must be taken in the breaks between academic sessions of the university.

Design of the Professional Curriculum The lecture/laboratory course material and the clinical experiences are integrated throughout the program.

Additional Cost In addition to regular university tuition and fees, students should expect to pay program-related expenses. Contact the program for a current cost sheet.

Opportunity for Students to Work There are no restrictions on the number of hours a student may work during the program. However, the student must recognize that the professional curriculum requires approximately 25-32 clock hours per week of on-campus participation in classroom, laboratory, and clinical course work. Study time and completion of general-education courses must also be considered. While most of the professional course activities are scheduled during daytime hours on Monday through Friday, there are several clinical experiences that require student participation on weekends and evenings. Please contact the program for more information.

Program Facilities The Radiography Program is offered in Indianapolis at the Indiana University Medical Center. The program offices, classrooms, and laboratory facilities are located on the first floor of the Clinical Building. Students obtain clinical experience in the radiology departments located in Indiana University, Riley, Wishard, and Veterans Administration hospitals and Regenstrief Health Center and St. Francis Hospital (Beech Grove). Students should expect to rotate to at least four clinical sites during the program.

Accreditation The associate degree program in radiography is fully accredited by the Joint Review Committee on Education in Radiologic Technology, 20 N. Wacker Drive, Suite 900, Chicago, IL 60606-2901, (312) 704-5300, www.jrcert.org.

ADMISSION

General Information

Students accepted into the program must complete the school's and the following program admission requirements prior to the first day of classes. Admission to the professional program is competitive; therefore, completion of the prerequisites does not guarantee admission to the program.

Criteria Used for Selection of Class In the selection of applicants to be offered admission, the Radiologic Science Admission Committee considers academic background, including total and science/math GPA, the completion of general-education courses that are part of the associate degree curriculum, any background applicants may have in a health-care related area, including but not limited to radiography, previous application for admission to the program, and the results of a personal interview.

Class Size 36 new students are admitted each June (beginning of summer session II).

Specific Requirements

In addition to the School of Allied Health Sciences admission policies and procedures found at the beginning of this section of the bulletin, the following apply to the Radiography Program.

Application Deadline November 15 of the year prior to anticipated entry in the program.

Total Number of Prerequisite Credit Hours 7.

Minimum Qualifications Meeting minimum criteria listed below will qualify applicants for continuation of the admission process. It does not guarantee admission to the program. Applicants for admission to the Associate of Science in Radiography degree may qualify for admission consideration in one of two ways:

A. Applicants with fewer than 12 college credit hours

Completion of fewer than 12 credit hours of GPA-earning courses including the prerequisite courses in composition (ENG W131) and algebra (MATH 110 or 111).

Qualifying Criteria:

1. High school cumulative academic GPA of at least 3.00 on a 4.00 scale. The high school GPA is calculated using college preparatory academic courses only. Other courses, such as band, chorus, physical education, etc., are removed from the GPA when it is calculated.
2. High school math/science GPA of at least 3.00 on a 4.00 scale.
3. Qualifications for regular admission to IUPUI if not already admitted.
4. College GPA of at least 2.50 on a 4.00 scale.
5. No less than a C in either of the prerequisite courses.

B. Applicants with 12 or more college credit hours

Completion of a minimum of 12 credit hours of GPA-earning courses to include the prerequisite courses in composition (ENG W131) and algebra (MATH 110 or 111).

Qualifying Criteria:

1. College GPA of at least 2.50 on a 4.00 scale for all college work completed. (Course grades from *all* institutions attended will be used.)
2. No less than a C in either of the prerequisite courses.
3. College math/science GPA of at least 2.30 on a 4.00 scale.
4. All college courses taken, including remedial courses, are considered when calculating the minimum total GPA and math/science GPA.

The criteria listed above represent the minimum criteria. The required grade point averages will be applied at the time of application and must be maintained at the completion of each enrollment period. Applicants who do not meet the GPA requirements when they apply may request a reactivation of their application if they subsequently meet the GPA requirements and the class selection process has not been completed.

High School Applicants Check with your school to see if you can earn college credit while in high school to complete the two prerequisite courses.

GED Applicants Those who have completed the GED certificate must qualify under Section B above. In addition to the required prerequisite courses, the GED applicant must include a college science course in the minimum of 12 credits to qualify.

College Applicants All applicants with more than 12 credit hours of GPA-earning courses must qualify under Section B regardless of high school background.

Interview An interview is required for admission. However, if the number of applications to the program far exceeds the number of positions available, the program admissions committee reserves the right to limit the number of applicants interviewed to two times the number of positions available in the class. Interviews are scheduled during late January.

Technical Requirements See School of Allied Health Sciences policy.

Indiana Residents Preference Policy See School of Allied Health Sciences policy.

Volunteer Experience The admissions committee urges all interested applicants to spend time observing or volunteering in a radiology department. If you cannot arrange to do so at a local hospital by calling the chief technologist and indicating your desire to learn more about the field, a time can be scheduled in one of the Medical Center hospital departments.

CURRICULUM

Prerequisites

Elementary Composition I	
ENG W131	3 cr.
Algebra MATH 110 or 111	4 cr.

Professional Program

Courses in the professional program are sequential and, therefore, must be taken in the order specified by the program faculty. The code "G" indicates a course that meets the school's general-education requirements.

First Year

Summer Session I

Prerequisites

English Composition ENG W131 (G)	3 cr.
Intermediate Algebra MATH 110 or 111 (G)	4 cr.

First Year

Summer Session II

Introduction to Clinical Radiography	
AHLT R103	2 cr.
Patient Care in Radiologic Sciences	
AHLT R104	2 cr.
Medical Terminology AHLT R185 ¹	1 cr.
Seminar: Professional Values	
AHLT R207	1 cr.
Total	6 cr.

Fall

Radiographic Procedures I	
AHLR R101	4 cr.
Principles of Radiography I	
AHLT R102	3 cr.
Clinical Experience in Radiography I	
AHLT R181	4 cr.
Topics: Radiography Procedures	
Laboratory AHLT R208	1 cr.
Human Biology BIOL N212	2 cr.
Human Biology Laboratory	
BIOL N213	1 cr.
Total	15 cr.

Spring

Radiographic Procedures II AHLT R201	3 cr.
Principles of Radiography II AHLT R202	3 cr.
Clinical Experience in Radiography II AHLT R182	4 cr.
Topics: Medical Assisting in Radiology AHLT R208	2 cr.
Human Biology BIOL N214 ¹	2 cr.
Human Biology Laboratory BIOL N215	<u>1 cr.</u>
Total	15 cr.

Second Year*Summer Session I*

Clinical Correlation (AHLT R281, R282, or R283)	1 cr.
Clinical Experience (AHLT R281, R282, or R283)	2 cr.
Topics: Darkroom AHLT R208	<u>1 cr.</u>
Total	4 cr.

Summer Session II

Clinical Experience (AHLT R281, R282, or R283)	2 cr.
Clinical Correlation (AHLT R281, R282, or R283)	1 cr.
Total	3 cr.

Fall

Pathology AHLT R200	2 cr.
Principles of Radiography III AHLT R222	3 cr.
Physics Applied to Radiology AHLT R250	3 cr.
Clinical Correlation (AHLT R281, R282, or R283)	2 cr.
Clinical Experience (AHLT R281, R282, or R283)	4 cr.
Oral Communications COMM R110 or C180 (G)	<u>3 cr.</u>
Total	17 cr.

Spring

Radiographic Procedures III AHLT R205	3 cr.
Experiments and Quality Control AHLT R253	2 cr.
Radiation Biology and Protection in Diagnostic Radiology AHLT R260	1 cr.
Clinical Correlation (AHLT R281, R282, or R283)	2 cr.
Clinical Experience (AHLT R281, R282, or R283)	4 cr.
Social/Behavioral Science Elective ¹ (G)	<u>3 cr.</u>
Total	15 cr.

¹ Courses that may be taken along with or prior to the professional course work. Alternative courses (IUPUI numbers): Medical Terminology (AHLT R185): AHLT W105, CLAS C209; Human Biology sequence (BIOL N212/3/4/5): BIOL N261 and BIOL N217.

Awards The faculty will recommend to the university graduating students with superior academic performance for degrees awarded with distinction. Also, students with outstanding academic and clinical achievement during their professional program may be recognized by the program at the time of graduation.

Graduation Requirements Satisfactory completion of 84 credit hours to include 22 credit hours of graduation requirements and 84 credit hours of professional courses. All course work must be completed in compliance with the program's and school's academic and professional policies.

For further information, contact Professor Emily Hernandez, Director, Radiography Program, IUPUI, Clinical Building 120, 541 N. Clinical Drive, Indianapolis, IN 46202-5111, (317) 274-3802, Fax: (317) 274-4074, E-mail: ehernand@iupui.edu.

Courses in Radiologic Sciences

"P" refers to a course prerequisite and "C" to a course that must be taken concurrently.

AHLT R100 Orientation to Radiologic Technology (2 cr.) C or P: R101, R102, and R181. Introduction to the field of radiology and its history. Students learn proper ethical standards, become acquainted with the duties and responsibilities in personal care for the patient, and investigate radiation protection for the patient and personnel. Degree credit will not be given for both R100 and R104.

AHLT R101 Radiographic Procedures I (3-4 cr.) C or P: R100 or R104, R102, and R181. Concepts in radiography with emphasis on the radiographic procedures used to demonstrate the skeletal system.

AHLT R102 Principles of Radiography I (3 cr.) C or P: College Algebra, R101, R181. Basic concepts of radiation, its production, and its interactions with matter. Includes the production of the radiographic image and film processing.

AHLT R103 Introduction to Clinical Radiography (2 cr.) Introduction to the functions and basic procedures of a diagnostic radiography department. Emphasis is placed on radiographic equipment, radiation protection, positioning terminology, and procedures used on typical radiographic examinations.

AHLT R104 Patient Care in Radiologic Science (2 cr.) Introduction to health care practices in the radiology department. Includes an overview of the field of radiology, ethics, patient care, and professional standards. Degree credit will not be given for both R100 and R104.

AHLT R181 Clinical Experience in Radiography I (1-6 cr.) C or P: R100 or R104. Clinical application of radiographic positioning, exposure techniques, and departmental procedures in all phases of radiologic technology, under the direct

supervision of a registered technologist until mastery of clinical objectives is reached.

AHLT R182 Clinical Experience in Radiography II (1-6 cr.) P: R101 and R181. Clinical application of radiographic positioning, exposure techniques, and departmental procedures in all phases of radiologic technology, under the direct supervision of a registered technologist until mastery of clinical objectives is reached.

AHLT R185 Medical Terminology (1 cr.) Introduction to the origin, derivation, and meaning of medical words.

AHLT R200 Pathology (2-3 cr.) P: Anatomy/Physiology. A survey of the changes that occur in the diseased state to include general concepts of disease, causes of disease, clinical symptoms and treatment, and diseases that affect specific body systems.

AHLT R201 Radiographic Procedures II (3 cr.) C or P: R101, R202, and R182. Concepts in radiography with emphasis on radiographic procedures used to demonstrate the skull and those requiring the use of contrast media.

AHLT R202 Principles of Radiography II (3 cr.) C or P: R102, R201, and R181. Continuation of R102 with emphasis on the properties that affect the quality of the radiographic image.

AHLT R205 Radiographic Procedures III (3 cr.) C or P: R201 and R222. Concepts in radiography with emphasis on special radiographic procedures and related imaging modalities.

AHLT R207 Seminar (1-5 cr.) Individual and group study focusing on the current state of the art in radiography. Student may enroll in this course multiple times depending on the topic covered.

AHLT R208 Topics in Radiography (1-4 cr.) Selected topics in radiography. May be repeated for credit if topics differ. Prerequisites may exist for some topics.

AHLT R209 Project (1-5 cr.) Individual and group activities that have a tangible result. Project examples for this course include the preparation of an exhibit, essay, or interesting radiography case file. Student may enroll in this course multiple times depending on the topic covered.

AHLT R222 Principles of Radiography III (3 cr.) P: R202. Continuation of R202 with emphasis on the application of radiography principles on imaging equipment.

AHLT R250 Physics Applied to Radiology (2-4 cr.) P: College Algebra. Fundamentals of radiation physics, X-ray generation, and equipment quality control.

AHLT R253 Radiation Experiments and Quality Control (2 cr.) P: R250. A laboratory course emphasizing the major characteristics of diagnostic X-ray systems and methods of assuring adequate function of radiographic equipment. Major topics

include anode heel effect, inverse square law, half-value layer, film sensitometry, radiation intensity, and quality control testing.

AHLT R260 Radiation Biology and Protection in Diagnostic Radiology (1-3 cr.) P: R250. Study of the biological effects of ionizing radiation and the standards and methods of protection. Emphasis is placed on X-ray interactions. Also included are discussions on radiation exposure standards and radiation monitoring.

AHLT R281 Clinical Experience in Radiography III (1-6 cr.) P: R201 and R182. Clinical application of radiographic positioning, exposure techniques, and departmental procedures in all phases of radiologic technology, under the direct supervision of a registered technologist until mastery of clinical objectives is reached.

AHLT R282 Clinical Experience in Radiography IV (1-6 cr.) P: R201 and R182. Clinical application of radiographic positioning, exposure techniques, and departmental procedures in all phases of radiologic technology, under the direct supervision of a registered technologist until mastery of clinical objectives is reached.

AHLT R283 Clinical Experience in Radiography V (1-6 cr.) P: R201 and R182. Clinical application of radiographic positioning, exposure techniques, and departmental procedures in all phases of radiologic technology, under the direct supervision of a registered technologist until mastery of clinical objectives is reached.

AHLT R290 Comprehensive Experience (1-8 cr.) P: R281, R282, and R283. Clinical application of radiographic positioning, exposure techniques, and departmental procedures in all phases of radiologic technology under the direct supervision of a registered technologist. Successful completion involves mastery of all clinical aspects of the program.

Respiratory Therapy

Educational programs in respiratory therapy are located on the following Indiana University campuses: Indiana University–Purdue University Indianapolis and Indiana University Northwest.

Description of the Profession Respiratory therapists assist patients with the “Breath of Life.” A career in respiratory therapy allows practitioners to care for individuals with cardiorespiratory disorders. The primary focus of a respiratory therapist is to care for patients, from the infant to the elderly, with heart and lung disease. Respiratory therapists are an integral part of the fast-paced world of medicine. They utilize life-support equipment to treat disease and aid in assessing and diagnosing cardiopulmonary disorders, often working in settings where respiratory therapists teach patients and their families about various respiratory diseases, smoking cessation techniques, or the equipment and drugs used to treat these problems. The Bachelor of Science in Respiratory Therapy degree provides graduates a career ladder that includes a broadened clinical emphasis within the cardiorespiratory field as well as leadership training.

Graduates of the Program The graduates of the Respiratory Therapy Program are eligible for state licensure examinations as well as examinations offered by the National Board for Respiratory Care. Completion of the program will allow a graduate to sit for the Registered Respiratory Therapist (R.R.T.) examination.

Credential Required to Practice C.R.T., Certified Respiratory Therapist; R.R.T., Registered Respiratory Therapist

Licensure Requirements to Practice The graduates of the Respiratory Therapy Program will file an application for certification as a respiratory care practitioner for the state of Indiana.

Bachelor of Science in Respiratory Therapy at Indiana University–Purdue University Indianapolis

Medical Director: Professor Hillier

Associate Medical Director: Professor Naven

Program Director: Professor Cullen

Clinical Director: Associate Professor Koss

Associate Professors: Van Scoder

Clinical Assistant Professor: Johnson

Lecturer, Part-time: Hunt

EDUCATIONAL PROGRAM

Description of the Program The Bachelor of Science program encompasses two professional years and two preprofessional years. Clinical experiences during the program include general adult and pediatric respiratory care, critical care, and pulmonary diagnostics. Emphasis is placed on clinical research, leadership skills, and communication. Senior clinical opportunities are available in adult critical care, neonatal-pediatric care, geriatrics, nicotine intervention, cardiovascular monitoring, polysomnography, and emergency care.

Length of the Program Four years; two years (55 credit hours) of prerequisite course work plus two years of professional course work.

Structure of the Program The prerequisites may be taken on a part-time basis; the professional program is a full-time program conducted primarily during the day.

Design of the Professional Curriculum The emphasis of the program is on general respiratory care as well as critical care and life-support equipment. Courses are organized to provide a diversity of experience.

Program Facilities The program offices, classroom, and laboratory are located on the second floor of Coleman Hall on the Indianapolis campus.

Location of Clinical Sites Clinical education experiences occur in a variety of settings, including hospitals, rehabilitation centers, nursing homes, physician offices, and other nontraditional health care facilities within Indiana. Most of the clinical sites are located within a 60-minute drive from downtown Indianapolis, and many are on the IUPUI campus. Students are expected to provide their own transportation to all clinical sites.

Additional Cost In addition to standard university fees, students are responsible for travel to clinics, laboratory fees, clinical fees, uniforms, vaccination costs, and CPR card fees. Students may be required to attend career seminars, professional meetings, or seminars. Occasionally small fees for attending these events may be necessary. Professional membership is required.

Opportunity for Students to Work Most students work part time while completing the program.

Accreditation The Respiratory Therapy Program is accredited by the Commission on Accreditation for Allied Health Education Programs.

ADMISSION

General Information

Students accepted into the program must complete the school's and the program's admission requirements prior to the first day of classes. Admission to the professional program is competitive; therefore, completion of the prerequisites does not guarantee admission to the program.

Criteria Used for Selection of Class Grade point average and results of personal interview.

Class Size Approximately 30 students.

Specific Requirements In addition to the School of Allied Health Sciences admission policies and procedures found at the beginning of this section of the bulletin, the following admission policies apply to the Respiratory Therapy Baccalaureate Degree Program.

Application Deadline December 1 of the year prior to anticipated entry. Late applications may be considered on a space-available basis.

Total Number of Prerequisite Hours 55. Graduates from accredited associate degree respiratory therapy programs are eligible to apply; however, applicants must have all prerequisites.

Minimum Cumulative Grade Point Average 2.30 on a 4.00 scale. This requirement is applied at the time of program application and must be maintained.

Minimum Math/Science Grade Point Average 2.30 on a 4.00 scale. This requirement is applied at the time of program application and must be maintained.

Minimum Grade Requirement in a Stated Prerequisite Course C (2.00 on a 4.00 scale).

Interview All qualified applicants must participate in an interview. Interviews are conducted in December and/or January.

Technical Standards See School of Allied Health Sciences policy.

Medical Requirements All students are required to complete a medical history and document a complete vaccination program once accepted into the Respiratory Therapy Program.

Indiana Resident Preference Policy See School of Allied Health Sciences policy.

Volunteer Experience Volunteer experience is very helpful in making a career choice and is highly recommended.

CURRICULUM

Prerequisites

Prior to entering the program, the student must complete the following minimum prerequisites. Students should consult with their academic advisors for appropriate courses and semester sequence in order to complete prerequisites. Prerequisites may be taken at any accredited college or university. The code "G" indicates a course that meets the school's general-education requirements.

Written Communication (G)	6 cr.
(Second course should focus on professional and technical writing.)	
Verbal Communication (G)	3 cr.
College Math (G)	5-6 cr.
Social and Behavioral Science (G)	3 cr.
Lifespan Development (G)*	3 cr.
Statistics (G)	3 cr.
Human Anatomy (with lab) (G)	3-5 cr.
Human Physiology (with lab) (G)	3-5 cr.
Chemistry (with Lab) (G)	3-5 cr.
Microbiology (G)	3-4 cr.
Ethics (G)*	3 cr.
Physics (G)	3 cr.
Introduction to Computers (G)	3 cr.

Suggested Electives

The following courses, while not inclusive or mandatory, are suggested: science, cellular biology, nutrition, CPR, health care administration, exercise physiology, medical terminology, epidemiology, health, computer literacy, psychology, and ethics.

Cardiopulmonary Resuscitation In addition to the above courses, all students are required to complete instruction for both adult, child, and infant CPR prior to entry into the program. This must be the Healthcare Provider course, not the Community CPR course. This course is offered for a fee through the American Heart Association.

A Suggested Plan of Study

First Year

Fall

Elementary Composition I	3 cr.
Chemistry (with lab)	3-5 cr.
Social and Behavioral Science	3 cr.
College Math I	3 cr.
Total	12-14 cr.

Spring

Speech Communication	3 cr.
College Math II	3 cr.
Human Anatomy (with lab)	3-5 cr.
Ethics/Philosophy	3 cr.
Total	12-14 cr.

*These courses may be completed prior to or during the professional program.

Second Year

Fall

Professional Writing	3 cr.
Physics I	3 cr.
Human Physiology with laboratory	4-5 cr.
Introduction to Computers	3 cr.
Total	13-14 cr.

Spring

Statistics	3 cr.
Introduction to Microbiology	3-4 cr.
Lifespan or Human Development	3 cr.
Elective	3+ cr.
Total	12+ cr.

Professional Program

Courses in the professional program are sequential and, therefore, must be taken in the order specified by the program faculty.

Third Year

Fall

Cardiorespiratory Physiology	
AHLT F311	3 cr.
General Respiratory Care	
AHLT F325	3 cr.
Respiratory Care Techniques I	
AHLT F326	2 cr.
Cardiorespiratory Assessment and Patient Care	
AHLT F315	2 cr.
Respiratory Care Practicum I	
AHLT F345	1 cr.
Cardiorespiratory Pharmacology I	
AHLT F333	2 cr.
Medical Care I	
AHLT W374	3 cr.
Total	16 cr.

Spring

Cardiorespiratory Diseases	
AHLT F350	3 cr.
Advanced Life Support	
AHLT F355	3 cr.
Respiratory Care Techniques II	
AHLT F356	2 cr.
Respiratory Care Practicum II	
AHLT F385	3 cr.
Pulmonary Diagnostics	
AHLT F371	3 cr.
Medical Care II	
AHLT W471	3 cr.
Total	17 cr.

Summer Session I

Respiratory Care Practicum III	
AHLT F395	3 cr.

Fourth Year

Fall

Neonatal-Pediatric Respiratory Care	
AHLT F405	3 cr.
Cardiorespiratory Monitoring and Special Techniques	
AHLT F451	3 cr.
Respiratory Care Practicum IV	
AHLT F456	4 cr.

Introduction to Research in Respiratory Care	
AHLT F420	3 cr.
Pulmonary Rehabilitation and Geriatrics	
AHLT F461	2 cr.
Management and Leadership for Respiratory Care	
AHLT F430	3 cr.
Total	18 cr.

Spring

Cardiorespiratory Pharmacology II	
AHLT F444	2 cr.
Case Study Review	
AHLT F425	3 cr.
Advanced Clinical Specialty I	
AHLT F485	5 cr.
Seminar in Cardiorespiratory Care	
AHLT F445	1-5 cr.
Smoking Cessation Techniques	
AHLT F480	1 cr.
Advanced Cardiac Life Support	
AHLT F440	2 cr.
Application of Research for Respiratory Care	
AHLT F465	2 cr.
Total	16-20 cr.

Scholarships Once accepted to the program, students are eligible for scholarships offered by the Indiana Society for Respiratory Care and the American Association for Respiratory Care.

Graduation Requirements Satisfactory completion of 125 credit hours to include 55 credit hours of prerequisite course work and 70 credit hours of professional course work. All course work must be completed in compliance with the program's and school's academic and professional policies.

For further information, contact Dr. Deborah Cullen, Director of the Respiratory Therapy Program, IUPUI, Coleman Hall 224, 1140 W. Michigan Street, Indianapolis, IN 46202-5119, (317) 278-7381 or 274-7381, Fax: (317) 278-7383, E-mail: rstaff@iupui.edu

Courses in Respiratory Therapy

"P" refers to a course prerequisite and "C" to a course that must be taken concurrently.

AHLT F311 Cardiorespiratory Physiology (3 cr.)

This course focuses on the normal anatomy and physiology of the cardiorespiratory system, including lung mechanics, ventilation, perfusion, diffusion, gas transport, and acid-base balance.

AHLT F315 Cardiorespiratory Assessment and Patient Care (2 cr.)

This course focuses on basic cardiorespiratory assessment, vital signs, laboratory studies, and charting. Normal and abnormal variations are reviewed.

AHLT F325 General Respiratory Care (3 cr.)

This course focuses on basic respiratory therapy procedures. Physiologic applications, effects on the cardiopulmonary system, and hazards for each therapeutic procedure are discussed. Topics include physical principles, airway care, humidity and aerosol

therapy, medical gas therapy, hyperinflation therapy, and chest physical therapy.

AHLT F326 Respiratory Care Techniques I (2 cr.) This course focuses on the most important clinical laboratory procedures and on procedures used by the respiratory therapist. Specifically, this course instructs students in patient assessment, oxygen administration, humidity and aerosol therapy, chest physical therapy, hyperinflation therapy, and monitoring expired gas.

AHLT F333 Cardiorespiratory Pharmacology I (2 cr.) This course provides an overview of the basics of pharmacology therapeutics, focusing on dosages and solutions and bronchodilator drugs. Indications, side effects, mechanism of action, and route of administration are discussed.

AHLT F345 Respiratory Care Practicum I (1 cr.) This course applies cardiorespiratory assessment techniques, information gathering skills, and communication skills in the clinical setting.

AHLT F350 Cardiorespiratory Diseases (3 cr.) This course outlines general cardiorespiratory diseases of the adult, including acute and chronic disorders. Respiratory therapeutics applied to these diseases are discussed.

AHLT F355 Advanced Life Support (3 cr.) This course includes care of the artificial airway, cardiovascular monitoring and supportive therapy, principles of ventilatory care, and maintenance as well as physiologic effects and complications of airway pressure therapy.

AHLT F356 Respiratory Care Techniques II (2 cr.) This course focuses on the most important clinical laboratory procedures and equipment used by the respiratory therapist to support critically ill patients. Specifically, this course instructs students in mechanical ventilators, pressure and heart rate monitors, pulmonary mechanics devices, and arterial blood gas sampling.

AHLT F371 Pulmonary Diagnostics (3 cr.) This course outlines and discusses both normal and abnormal lung volumes and capacities, mechanics of ventilation, inspiratory and expiratory flows, and diffusion of the lung. Additionally, specialty diagnostic techniques such as X-rays, bronchoscopy, ventilation perfusion scans, and exercise testing are overviewed.

AHLT F375 Respiratory Care Practicum V (4 cr.) This clinical practicum allows students to apply assessment skills, general respiratory care, and critical respiratory care techniques to the neonatal/pediatric patient and adult critical care patient with emphasis on performance of advanced life-support techniques.

AHLT F385 Respiratory Care Practicum II (3 cr.) This course applies cardiopulmonary assessment techniques, information gathering, and communication skills in providing general respiratory care in the clinical setting, including medical gas, humidity and aerosol therapy delivery, and treatment modalities.

AHLT F395 Respiratory Care Practicum III (3 cr.) This clinical practicum introduces students to variations in oxygen delivery and basic mechanical ventilation. Treatment modalities and hemodynamic

monitoring on mechanically ventilated patients will be integrated.

AHLT F405 Neonatal-Pediatric Respiratory Care (3 cr.) This course outlines fetal physiology, cardiorespiratory transition, and respiratory management of neonatal pathologies, including respiratory distress syndrome. Cardiorespiratory techniques for the pediatric patient as well as pediatric trauma and transport are reviewed.

AHLT F420 Introduction to Research in Respiratory Care (3 cr.) This course examines research in respiratory care and applies basic statistics and concepts of research design.

AHLT F425 Case Study Review (3 cr.) Case studies for diseases involving acid-base balance, electrolyte balance, ventilatory management, and other advanced life-support techniques or procedures as applied to the cardiorespiratory system are reviewed. Emphasis is on decision-making skills.

AHLT F430 Management and Leadership for Respiratory Care (3 cr.) Specific theory and practice applied to directing and managing a respiratory therapy department, including the managerial functions of budgeting, controlling, organization, planning, staffing, and coordinating. Leadership and skills pertinent to these functions as well as effective communication and professionalism are included.

AHLT F440 Advanced Cardiac Life Support (2 cr.) This course introduces students to the didactic and technical skills needed for successful proficiency of Advanced Cardiac Life Support standards as set forth by the American Heart Association.

AHLT F444 Cardiorespiratory Pharmacology II (2 cr.) P: AHLT F333. An overview of pharmacologic agents and their effect on the various body systems. Drug effects on the respiratory, circulatory, and nervous systems are emphasized.

AHLT F445 Seminar in Cardiorespiratory Care (1-5 cr.) Seminar is designed to meet the specialty selected by the student. Students may repeat this course with a new specialty area requested. Each student is required to take a minimum of one hour and a maximum of five hours.

AHLT F451 Cardiorespiratory Monitoring and Special Techniques (3 cr.) This course reviews electrocardiograms, intracranial pressure monitoring, capnography, and pulmonary artery monitoring techniques. Case studies emphasizing these special procedures are presented.

AHLT F456 Respiratory Care Practicum IV (4 cr.) This course allows students to apply advanced patient assessment techniques, information gathering skills, and communication and leadership skills in the neonatal/pediatric and adult critical care clinical settings.

AHLT F461 Pulmonary Rehabilitation and Geriatrics (2 cr.) This course gives an overview of rehabilitation therapies and techniques applicable to chronic lung disease. Basic concepts of gerontology and geriatrics are presented.

AHLT F465 Application of Research for Respiratory Care (2 cr.) Review studies related to

cardiorespiratory sciences. Conduct small group projects and literature review.

AHLT F475 Clinical Specialty II (4 cr.) Advanced clinical experiences in a specialty area of respiratory care supervised by registered respiratory therapists in varied clinical settings.

AHLT F480 Smoking Cessation Techniques (1 cr.) Theory and techniques of smoking education and cessation are presented. Attendance at seminars and community meetings required.

AHLT F485 Advanced Clinical Specialty I (5 cr.) Introductory clinical experience in a specialty area of respiratory care supervised by registered respiratory therapists in varied clinical settings.

General Allied Health Courses Available at IUPUI

Undergraduate

AHLT W100 Careers in Health Professions (2 cr.) P: ENG W131. Provides students interested in pursuing a health career with information on the variety of professions available in allied health, dentistry, medicine, nursing, and public health. Topics include a general description of each profession, educational requirements, salaries, employment opportunities, and educational outlook.

AHLT W101 Allied Health Keys to Success (1 cr.) P or C: ENG W131. Entering pre-allied health students, in partnership with allied health faculty and advisors, establish the foundations for success at IUPUI. This course is presented in a lecture/discussion format; each student accepts personal responsibility for learning. This course will assist students to create their personal goals for academic and career success and devise an action plan for achieving these goals. To reach these goals, students will become aware of personal and institutional resources.

AHLT W105 Medical Terms for the Health Sciences (1 cr.) This course is a programmed learning approach to the study of medical terminology. The course will cover the definition and spelling of medical word roots and combining forms, prefixes, suffixes, and medical abbreviations.

AHLT W374 Medical Care I (3 cr.) Interdisciplinary approach to the study of selected disease processes and conditions in all age groups and a survey of the medical and/or surgical management of these conditions.

AHLT W471 Medical Care II (3 cr.) Continuation of Medical Care I. Interdisciplinary approach to the study of selected disease processes and conditions in all age groups and a survey of the medical and/or surgical management of these conditions.

Graduate

AHLT W520 Research Methodology in Allied Health (3 cr.) P: G651 or equivalent. Fundamental concepts of research, ranging from philosophical foundations to practical applications. Course will provide the conceptual framework in which graduate students may develop their own research agenda. In keeping with the diversity of research, this course strives to introduce graduate students to the entire

continuum of research paradigms, from qualitative, naturalistic inquiry to quantitative, experimental designs.

AHLT W570 Research Communication in Allied Health (3 cr.) P: W520 and consent of both instructor and research advisor. Instruction and consultation in the preparation of master's thesis proposals, including computer applications for conducting on-line literature searches, developing an individual bibliographic database, designing an original research project, and devising a sound methodology. Final outcome is a completed thesis proposal for submission to a graduate student's thesis committee. Course is open only to allied health graduate students pursuing the research/thesis track in their program of study. Students must begin the course with a specific research agenda already approved by their research advisor.

Graduate Programs—University Graduate School

Therapeutic Outcomes Research

This graduate program is offered through University Graduate School. For a more detailed description, see that section of the bulletin. This program is designed to prepare credentialed health care professionals to conduct patient outcomes research in order to evaluate the effectiveness of therapeutic interventions within their own disciplines. The chief feature of this program is the emphasis on original research to determine therapeutic benefit in terms of physiologic, symptomatic, functional, perceptual, and quality-of-life outcomes.

Description of the Outcomes Research

There have been three major eras in the evolution of the U.S. health-care system since the late 1940's: expansion, cost-containment, and now assessment and accountability. In the expansion era, health care underwent remarkable growth in technology, training, and delivery. Emphasis was on the perfection of health care, with no consideration of costs or resource demands. Spiraling costs and disenchantment with the curative power of technology brought on the cost-containment era. Emphasis was now placed on limiting spending and maximizing productivity, often at the expense of patient satisfaction. Today, there is a growing understanding of the balance between use of health-care resources on one hand and patient benefits on the other, or between assessment and accountability. Based on a more sophisticated awareness of what actually constitutes the costs and benefits of treatment, emphasis is now placed on rational use of resources in light of a realistic appraisal of therapeutic benefits. Patient-centered outcomes research concentrates on the assessment of therapeutic interventions under conditions of real, not ideal, practice. Allied health professionals are particularly well positioned to conduct therapeutic outcomes research because their clinical work is oriented toward the holistic factors that outcomes research purports to measure: multidimensional assessment of health status and improvement of patient quality of life. Moreover, as

demand for useful and valuable outcomes measurement continues to grow among health-care institutions and organizations, allied health professionals are increasingly being called upon to conduct outcomes assessment at their place of employment.

Master of Science in Therapeutic Outcomes Research at Indiana University–Purdue University Indianapolis

Program Director: Professor Oldridge

Professors: Cullen, MacKinnon, Sothmann

Associate Professor: Quillen

EDUCATIONAL PROGRAM

Admission Requirements

Students accepted into the program must meet all requirements of both University Graduate School and the School of Allied Health Sciences. Applicants must submit the following: (1) official undergraduate transcripts; (2) a 300- to 500-word personal statement of academic and professional goals; (3) three letters of recommendation from those familiar with applicants' academic and professional performance; (4) official scores of the Graduate Record Examination (GRE); and (5) for international students, official TOEFL scores. The minimum admission requirements are:

1. A bachelor's degree from an accredited institution.
2. Eligibility for license or credential in a health profession.
3. Total undergraduate GPA of at least 3.00 on a 4.00 scale.
4. GRE scores of at least 500 each for the verbal and analytical sections.
5. If applicable, a TOEFL score of at least 600.

Course Requirements

A total of 30 credit hours beyond the bachelor's degree, of which 12 credit hours are in health outcomes, 3 credit hours are in electives, and 15 credit hours are in research (including thesis work).

Thesis Requirement

The capstone experience is the writing and submission of a thesis based on original research conducted by the student and supervised by a thesis committee. Curricular electives are focused on developing expertise to articulate and research a testable hypothesis in a specific content area pertaining to patient-centered outcomes under the direction of a research advisor holding graduate faculty membership in University Graduate School. Theses must follow the *Indiana University Guide to the Preparation of Theses and Dissertations*.

CURRICULUM

Health Outcomes (12 cr.):

AHLT W510 Trends and Issues in Allied Health (3 cr.)

SPEA H517 Managerial Epidemiology (3 cr.)

SPEA H615 Health Outcomes and Decision Making (3 cr.)

AHLT W560 Topics in Patient-Centered Outcomes Research (3 cr.)

Electives (3 cr.):

[In consultation with graduate advisor] (3 cr.)

Research (15 cr.):

GRAD G651 Introduction to Biostatistics I (3 cr.)

AHLT W520 Research Methodology in Allied Health (3 cr.)

AHLT W570 Research Communication in Allied Health (3 cr.)

AHLT Z599 Thesis in Health Sciences (6 cr.)

AHLT W799 Master's Thesis Continuation (1 cr., can be repeated)

Total Minimum Credits: 30 cr.

Courses in Therapeutic Outcomes Research

Courses offered in the School of Allied Health Sciences

"P" refers to a course prerequisite and "C" to a course that must be taken concurrently.

AHLT W510 Trends and Issues in Allied Health (3 cr.) A seminar course to review pertinent literature and other sources of information as a basis for discussing trends and issues affecting the therapeutic professions and the health-care delivery system.

AHLT W520 Research Methodology in Allied Health (3 cr.) P: G651 or equivalent. Fundamental concepts of research, ranging from philosophical foundations to practical applications. Course provides the conceptual framework in which graduate students may develop their own research agenda. In keeping with the diversity of research, this course strives to introduce graduate students to the entire continuum of research paradigms, from qualitative, naturalistic inquiry to quantitative, experimental designs.

AHLT W560 Topics in Patient-Centered Outcomes Research (3 cr.) Explorations of selected patient-centered outcomes assessment methodology and research evidence related to allied health science professions at an advanced level.

AHLT W570 Research Communication in Allied Health (3 cr.) P: W520 and consent of both instructor and research advisor. Instruction and consultation in the preparation of master's thesis proposals, including computer applications for conducting online literature searches, developing an individual bibliographic database, designing an original research project, and devising a sound methodology. Final outcome is a completed thesis proposal for submission to a graduate student's thesis committee. Course is open only to allied health graduate students pursuing the research/thesis track in their program of study. Students must begin the course with a specific research agenda already approved by their research advisor.

AHLT Z599 Thesis in Health Sciences Education (3 cr.) Individual investigation in the form of an organized scientific contribution or a comprehensive

analysis in a specified area related to health sciences education.

AHLT Z799 Master's Thesis Continuation (1 cr., can be repeated) Used as continuation credits for completing the master's thesis in a format acceptable to the student's advisory committee, leading to successful defense of the final product. May be repeated for credit.

Courses offered in other IUPUI Schools:

GRAD G651 Introduction to Biostatistics I (3 cr.)
SPEA H517 Managerial Epidemiology (3 cr.)
SPEA H615 Outcomes Assessment and Outcomes Management (3 cr.)

For further information, contact Neil Oldridge, Ph.D., Therapeutic Outcomes Research Program, School of Allied Health Sciences, 1140 W. Michigan Street, Indianapolis, IN 46202, (317) 278-1690, E-mail: ahlgrad@iupui.edu.

Administrative Officers

Dean, Mark Sothmann, Ph.D.

Associate Dean for Academic and Student Affairs,
Joyce Mac Kinnon, Ed.D.

Program Directors:

Clinical Laboratory Sciences, Linda Kasper, M.S.
Cytotechnology, William Crabtree, M.S.
Health Information Administration, Danita Forgey, M.S., Acting
Health Sciences Education, Karen Gable, Ed.D.
Histotechnology, Glenda Hoyer, B.S.
Nutrition and Dietetics, Jacquelyn O'Palka, Ph.D.
Occupational Therapy, Cel Hamant, M.S.
Paramedic Sciences, Leon Bell, M.S.Ed.
Physical Therapy, William (Sandy) Quillen, Ph.D.
Radiation Therapy, Donna Dunn, M.S.
Radiologic Sciences, Emily Hernandez, M.S.
Respiratory Therapy, Deborah Cullen, Ed.D.
Therapeutic Outcomes Research, Neil Oldridge, Ph.D.

Faculty

Credential Abbreviations

A.B.R.—American Board of Radiology
R.H.I.T.—Accredited Health Information Technician
A.T.C.—Certified Athletic Trainer
B.B. (ASCP)—Technologist in Blood Banking
C (ASCP)—Technologist in Chemistry
C.C.S.—Certified Coding Specialist
C.M.I.A.C.—Cytologist Member of the International Academy of Cytology
C.L.S.—Clinical Laboratory Scientist
C.L.T.—Clinical Laboratory Technician
C.N.M.T. (NMTCB)—Certified Nuclear Medicine Technologist
C.S.—Certified Specialist in Pediatric Nutrition
C.T. (ASCP)—Cytotechnologist

E.M.T.-P.—Emergency Medical Technician-Paramedic
E.A.D.A.—Fellow, American Dietetic Association
E.A.O.T.A.—Fellow, American Occupational Therapy Association
H.T. (ASCP)—Histologic Technician
I (ASCP)—Technologist in Immunology
M (ASCP)—Technologist in Microbiology
M.L.T. (ASCP)—Medical Laboratory Technician
M.M.—Master's of Management
M.T. (ASCP)—Medical Technologist
N.C.S.—Neurologic Clinical Specialist
N.R.E.M.T.-P.—Nationally Registered Emergency Medical Technician-Paramedic
O.T.R.—Registered Occupational Therapist
P.I.—Primary Instructor for Emergency Medical Services
P.T.—Physical Therapist
R.D.—Registered Dietitian
R.N.—Registered Nurse
R.H.I.A.—Registered Health Information Administrator
R.R.T.—Registered Respiratory Therapist
R.T. (CT) ARRT—Registered Computed Tomography Technologist
R.T. (CV) ARRT—Registered Cardiovascular Interventional Technologist
R.T. (QM) ARRT—Registered Quality Management Technologist
R.T. (MR) ARRT—Registered Magnetic Resonance Imaging Technologist
R.T. (N) ARRT—Registered Nuclear Medicine Technologist
R.T. (R) ARRT—Registered Radiographer
R.T. (T) ARRT—Registered Radiation Therapy Technologist
R.V.T. (ARDMS)—Registered Vascular Technologist
S.B.B. (ASCP)—Specialist in Blood Banking
S.C. (ASCP)—Specialist in Chemistry
S.C.S.—Sports Clinical Specialist
S.C.T. (ASCP)—Specialist in Cytotechnology
S.H. (ASCP)—Specialist in Hematology
S.I. (ASCP)—Specialist in Immunology
S.M. (ASCP)—Specialist in Microbiology

Faculty Emeriti

Ashton, Janatha R., R.H.I.A., B.S. (Indiana University, 1965), M.S. (Indiana University, 1978), Associate Professor Emerita of Health Information Administration
Carl, T. Kay, B.S. (Indiana University, 1967), O.T.R. (1967), Assistant Professor Emerita of Occupational Therapy
Ekstam, Frances C., M.S. (Indiana University, 1960), P.T. (1944), Professor Emerita of Physical Therapy

Feeley, Mary, Ed.D. (Indiana University, 1986), M.T. (ASCP) (1946), Professor Emerita of Medical Technology

Hocker, Narcissa, M.S. (Indiana University, 1964), M.T. (ASCP) (1945), S.B.B. (ASCP) (1955), Associate Professor Emerita of Medical Technology

Irwin, Louise, B.S. (Purdue University, 1939), Professor Emerita of Nutrition and Dietetics

Ladue, Ruth A., M.A. (Stanford University, 1967), P.T. (1945), Assistant Professor Emerita of Physical Therapy

Lamport, Nancy, M.S. (Butler University, 1984), O.T.R. (1953), Associate Professor Emerita of Occupational Therapy

McKenzie, Mary L., M.S. (Indiana University, 1973), R.R.A. (1954), Associate Professor Emerita of Health Information Administration

Nathan, Carol D., Ed.D. (Indiana University, 1988), O.T.R. (1958), F.A.O.T.A. (1979), Associate Dean of the Faculties and Associate Professor Emerita of Occupational Therapy

Simek, Erna, M.H.A. (Washington University, 1954), O.T.R. (1944), Associate Professor Emerita of Occupational Therapy

Van Ness, Ada Marie, M.S. (Ohio State University, 1962), Assistant Professor Emerita of Nutrition and Dietetics

Wilson, Arlene, M.S. (Purdue University, 1956), Professor Emerita of Nutrition and Dietetics

Young, Mildred R., M.S. (Butler University, 1966), M.T. (ASCP) (1942), SH (ASCP) (1980), Assistant Professor Emerita of Medical Technology

Faculty

Bainbridge, Cheryl K. (P.T.); Clinical Assistant Professor of Physical Therapy; B.S., Indiana University, 1969; M.S.Ed., Indiana University, 1975

Baker, Sarah S. [R.T. (R), FASRT, A.R.R.T.]; Associate Professor of Radiologic Sciences; A.S., Indiana University, 1973; B.S., Indiana University, 1974; M.S., Indiana University, 1979; Ed.D., Indiana University, 2001

Bell, Leon H. (E.M.T.-P); Clinical Associate Professor; B.A., DePauw University, 1976; M.S.Ed., Butler University, 1989

Blackburn, Sara A. (R.D.); Associate Professor of Clinical Nutrition and Dietetics; B.S., Purdue University, 1972; M.S., Purdue University, 1973; D.Sc., Boston University, 1980

Brady, (Mary) Sue (R.D., F.A.D.A.); Professor of Nutrition and Dietetics; B.S., Marian College, 1968; R.D. Dietetic Internship, Indiana University Medical Center, 1969; M.S., Indiana University, 1970; D.M.Sc., Indiana University School of Medicine, 1987

- Carey, Mary T. (P.T.);** *Clinical Assistant Professor of Physical Therapy; B.S., Indiana University, 1983; M.S., University of Indianapolis, 1983*
- Chapman, David D.;** *Visiting Assistant Professor of Physical Therapy; B.S., Indiana University, 1972; M.S., Indiana University, 1977; Ph.D., Indiana University, 1991*
- Cox, Linda A. [R.T.(R), MR(CT), A.R.R.T.];** *Assistant Professor of Clinical Radiologic Sciences; A.S., Indiana University, 1979; B.S., Indiana University, 1987; M.S., Indiana University, 1992*
- Crabtree, William N. (C.T., S.C.T.);** *Director and Associate Professor of Cytotechnology; B.S., University of Tennessee, 1977; M.S., Indiana University, 1983*
- Cullen, Deborah L. (R.R.T.);** *Professor and Director of the Respiratory Therapy Program; Associate Professor of the Graduate School; B.S., Central Florida University, 1974; M.A., San Diego State University, 1980; Ed.D., University of Southern California, 1989*
- Dunn, Donna K. [R.T.(T), A.R.R.T.];** *Assistant Professor and Program Director of Radiation Therapy; A.S., Indiana University, 1969; B.S., Indiana University, 1973; M.S., Indiana University, 1979*
- Dunning, Kari H. (P.T., N.C.S.);** *Visiting Assistant Professor of Physical Therapy; B.S., University of Wisconsin, 1987; M.S., University of Cincinnati, 1993*
- Ernst, Judith Ann (R.D.);** *Associate Professor of Nutrition and Dietetics; B.S., University of Illinois, 1975; R.D. Dietetic Traineeship (Columbia, Missouri), 1976; M.S., Purdue University, 1977; D.M.Sc., Indiana University, 1988*
- Forgey, Danita H. (H.I.A.);** *Lecturer and Program Director of the Health Information Administration Program; B.S., Indiana University, 1981; M.I.S., Indiana University, 2001.*
- Frain, Barbara M. (C.T.);** *Clinical Assistant Professor of Cytotechnology; B.S., Indiana University, 1986; M.S., Indiana University, 1993*
- Gable, Karen E. (R.D.H.);** *Associate Professor and Director of the Health Sciences Education Program; B.S., Indiana University, 1976; M.S., Indiana University, 1979; Ed.D., Indiana University, 1985*
- Griswold, Patricia A. (O.T.R., F.A.O.T.A.);** *Clinical Assistant Professor of Occupational Therapy and Coordinator of Fieldwork; B.S., Indiana University, 1963; M.S., Butler University, 1971*
- Hallam, Judith A. (E.M.T.-P, R.N.);** *Clinical Associate Professor; B.S.N., Indiana University, 1982; M.S.Ed., Indiana University, 1990*
- Hamant, Celestine (O.T.R., F.A.O.T.A.);** *Associate Professor and Director of the Occupational Therapy Program; B.A., Saint Mary-of-the-Woods College, 1962; Certificate, Occupational Therapy, Washington University (St. Louis), 1964; M.S., Butler University, 1971*
- Hartsell, Heather D. (P.T.);** *Associate Professor of Physical Therapy; B.A., The University of Western Ontario, 1975; M.S., University of Alberta, 1978; Ph.D., University of Alberta, 1982; B.S., Physical Therapy, University of Western Ontario, 1987*
- Hernandez, Emily M. [R.T.(R) (Q.M.), A.R.R.T.];** *Associate Professor and Director of Radiologic Sciences; A.S., Indiana University, 1970; B.S., Indiana University, 1974; M.S., Indiana University, 1978*
- Hoye, Glenda F. (H.T.);** *Lecturer and Director of the Histotechnology Program; B.S., Indiana University, 1998*
- Kasper, Linda M. (M.T., S.C.);** *Associate Professor and Director of Clinical Laboratory Science Program; B.S., Florence State University, 1962; M.S., Indiana University, 1977*
- Kehrein, Suetta [R.T.(R), A.R.R.T.];** *Assistant Professor of Radiologic Sciences; A.S., Indiana University, 1968; B.S., Indiana University, 1970; M.S., Indiana University, 1975*
- Kiel, Judith L. (O.T.R.);** *Clinical Associate Professor of Occupational Therapy and Coordinator of Admissions; B.S., Indiana University, 1969; M.S., Indiana University, 1979*
- Kosegi, Judith E. [C.N.M.T., R.T.(R) (N), A.R.R.T.];** *Associate Professor of Radiologic Sciences; A.S., Indiana University, 1970; B.S., Indiana University, 1972; M.S., Indiana University, 1978; M.S., Indiana University, 1987*
- Koss, Joseph A. (R.R.T.),** *Associate Professor and Director of Clinical Education for the Respiratory Therapy Program; B.S., University of Wisconsin, 1964; M.S., Indiana University, 1977*
- Long, Bruce W. [R.T.(R) (CV), A.R.R.T.];** *Associate Professor of Radiologic Sciences; B.S., Murray State University, 1977; M.S., Eastern Illinois University, 1983*
- MacKinnon, Joyce L. (P.T.);** *Professor and Associate Dean for Academic Affairs; B.A., Ohio Wesleyan University, 1972; M.P.T., Baylor University, 1974; Ed.D., North Carolina State University, 1987*
- Marler, Linda M.;** *Associate Professor and Clinical Microbiology Education Coordinator of Clinical Laboratory Science; B.S., Indiana University, 1973; M.S., Indiana University, 1978*
- Miller, M. Devon; (R.H.I.A.)** *Assistant Professor of Health Information Administration; B.A., Gosben College, 1960; M.S., Indiana University, 1966*
- Oldridge, Neil B.;** *Professor and Director of Therapeutic Outcomes Research Program; B.A., Rhodes University, 1959; M.A., University of Florida, 1966; Ph.D., University of Wisconsin-Madison, 1972*
- O'Palka, Jacquelyn (R.D.);** *Professor of Clinical Nutrition and Director of the Nutrition and Dietetics Program; B.S., California State University at Northridge, 1968; M.S., Pennsylvania State University, 1970; Ph.D., Pennsylvania State University, 1973*
- Perry, Douglas G.** *Associate Professor; A.A., Skyline College, 1973; B.S., Regents College, 1978; M.S., State University of New York at Stony Brook, 1983; M.A., City University of New York, 1989; Ph.D., City University of New York, 1991*
- Porter, Rebecca (P.T.);** *Associate Professor of Physical Therapy, Interim Executive Director of Enrollment Services, and Interim Associate Vice Chancellor for Student Services; B.S., Indiana University, 1972; Ph.D., Indiana University, 1991*
- Quillen, William S. (P.T., S.C.S.);** *Associate Professor and Director, Physical Therapy Program; B.S., Springfield College, 1973; M.Ed., University of Missouri, 1974; B.S., University of Central Arkansas, 1977; M.P.A., Golden Gate University, 1986; Ph.D., University of Virginia, 1989*
- Rafert, John A. [R.T.(R), A.R.R.T.];** *Associate Professor of Radiologic Sciences; A.S., Indiana University, 1985; B.S., Indiana University, 1970; M.S., Indiana University, 1980*
- Rickard, Karyl (R.D., F.A.D.A.);** *Professor of Nutrition and Dietetics; B.S., University of Wyoming, 1966; Dietetic Internship, V.A. Medical Center (Houston), 1967; M.S., University of Wisconsin, Madison, 1970; Pediatric Nutrition Fellowship, University of Washington Child Development Center (Seattle), 1970; Ph.D., Purdue University, 1978*
- Robinson, Susan, [R.T.(R), A.R.R.T.];** *Assistant Professor of Clinical Radiologic Sciences; A.S., Indiana University, 1972; B.S., Indiana University, 1973; M.S., Indiana University, 1997*
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- Schneider, Judith M. [R.T.(R), A.R.R.T.];** *Assistant Professor and Program Clinical Coordinator of Clinical Radiation Therapy; A.S., Indiana State University, 1976; B.S., Indiana University, 1981; M.S., Indiana University, 1987*

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INDIANA UNIVERSITY HERRON SCHOOL OF ART



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Contents

91 Herron School of Art	100 Art History Program
91 History	103 Options for Nonmajors
91 Mission	103 Elective Courses
91 Degrees	103 Precollege Classes
91 Accreditation	103 Continuing Education
91 Faculty	103 Courses
91 Resources	103 Art Courses for Nonmajors
91 Herron Gallery	103 Art Degree Foundation Program
91 Indianapolis Museums and Galleries	103 Art Degree Senior Capstones and Research Courses
91 Guest Artists and Lecturers	104 Art Education
91 Admission	104 Art History
92 Admission with Transfer Credit	106 Book Arts
92 Readmission of Former Students	106 Ceramics
92 Academic Sequencing	106 Drawing
92 Herron Expenses	106 Furniture Design
92 Review for Advancement	106 Illustration
92 Academic Policies and Regulations	106 Painting
92 Attendance	107 Photography
92 Dean's List	107 Printmaking
92 Academic Probation	108 Sculpture
92 Academic Dismissal	108 Visual Communication
92 Petition for Readmission	109 Faculty
92 Academic Forgiveness	109 Administrative Officers
93 Pass-Fail Option	109 Resident Faculty
93 Graduation	109 Faculty Emeriti
93 General Requirements for a Baccalaureate Degree	109 Gallery
93 Requirements for a Second Degree	109 Library
93 Herron Scholarships	
93 Entering Student Portfolio Scholarships	
93 Continuing Student Scholarships	
93 Student Services	
93 Student Activities	
93 Alumni Association	
93 Career Counseling and Placement	
93 International Travel	
94 School Requirements: First-Year Foundation Program	
94 Bachelor of Fine Arts Programs	
94 General Academic Requirements	
94 Ceramics	
95 Furniture Design	
95 General Fine Arts	
96 Painting	
96 Photography	
96 Printmaking	
97 Sculpture	
97 Visual Communication	
98 Capstone Experience	
98 Summary of Credits Required for B.F.A. Majors	
98 Art Education Programs	
98 The Bachelor of Art Education Degree	
99 The Bachelor of Art Education plus the Bachelor of Fine Arts	
100 The Master of Art Education Degree	

Herron School of Art

History

The Herron School of Art boasts a rich tradition. The roots of the school were planted in 1877, when it was established as the first school in Indiana dedicated to the teaching of art on a professional level. After several years of intermittent instruction, the school resumed on a permanent basis in 1902. The Herron School of Art has completed over 100 years of uninterrupted education in art. Through the years, the school has become a nationally recognized institution.

In 1967 the Herron School of Art became a school of Indiana University. Two years later, with the creation of Indiana University–Purdue University Indianapolis (IUPUI), Herron became part of this innovative approach to higher education. As a professional art school within a university, Herron offers students a full range of university resources. Yet Herron retains the comfortable, efficient size and friendly spirit of an independent college of art.

Mission

The primary mission of the Herron School of Art is to provide quality education for students committed to careers in the visual arts, including ceramics, painting, photography, printmaking, sculpture, visual communication, furniture design, art education, and art history. Herron also offers courses to provide visual literacy and an understanding of the visual arts for students who are not majoring in art and for other interested members of the community.

The school's size, numerous programs, and location in downtown Indianapolis create multiple opportunities for students to grow in their own disciplines. For more information about Herron School of Art, visit our World Wide Web page at www.herron.iupui.edu.

Degrees

The Herron School of Art educates students seeking professional careers in the fine arts, visual communication, art history, and art education. Degrees currently offered are the Bachelor of Fine Arts (B.F.A.), the Bachelor of Arts (B.A.) in art history, the Bachelor of Art Education (B.A.E.), and the Master of Art Education (M.A.E.).

Accreditation

The Herron School of Art is an accredited institutional member of the National Association of Schools of Art and Design (NASAD) since 1952. Herron is also accredited as a school of Indiana University by the North Central Association of Colleges and Schools and by the Teacher Training Licensing Commission of the Indiana State Board of Education.

Faculty

The Herron School of Art faculty is made up of artists, designers, art historians, art educators, and scholars engaged in the integrated activities of teaching and research. Faculty in the school believe a high level of professional activity not only enhances teaching but also provides students with models upon which to pattern their own careers. The faculty is consistently recognized with awards, commissions, exhibitions, and publications both regionally and nationally. The expertise of the Herron faculty is further extended by a program of visiting artists and lecturers from the Indianapolis community and throughout the nation.

Resources

Herron Gallery

The Herron Gallery is a nonprofit visual art gallery that provides the community, local high school students, and IUPUI students, faculty, and staff with daily, firsthand exposure to contemporary works of art created by regional, national, and international artists.

The gallery is committed to a program of seven exhibits each year that explore all areas of visual artistic expression. The gallery holds annual student and senior exhibitions, and it facilitates an ongoing series of faculty exhibitions in its 1,800 square feet.

Each year's exhibit schedule is coordinated with the school's lecture series to provide a broader understanding of the works presented at any given time. In addition, workshops are conducted by visiting/exhibiting artists to give students the opportunity to work directly with recognized professionals.

The gallery is intended as an educational resource for students as well as the community. Each exhibit is accompanied by an announcement and a public opening. A mailing list exists for anyone interested in receiving gallery information. Informal talks are available, and group visits are encouraged.

The gallery is staffed by a full time director/curator and hourly student employees placed through the university's work-study program. The gallery is open to the public, free of charge, during the academic year, with additional exhibitions and hours that vary. Interested persons may visit the gallery, located in the Museum Building at Herron School of Art. Call for current gallery hours and an exhibition schedule at (317) 920-2420.

Indianapolis Museums and Galleries

The Indianapolis Museum of Art is housed in a spectacular facility on the former Eli Lilly estate at Oldfields. This fine museum features a notable permanent collection and a lively program of changing exhibitions.

Several art galleries are in the Indianapolis area, including one operated by the Herron School of Art. The Herron Gallery maintains an exciting program of

changing exhibitions, serves as Indianapolis's center for contemporary art, and annually focuses on works by Herron students and faculty.

Guest Artists and Lecturers

Terry Allen
Garo Antreasian
Richard Anuskiewicz
Christopher Brown
Roger Brown
John Buck
Deborah Butterfield
Wendall Castle
Christo
Robert Colescott
Barry Deck
Patrick Dougherty
Rackstraw Downes
Jeanne Dunning
Richard Ford Jr.
Judith Goldman
Laurie Haycock-Makela
Kathryn Hixson
Brad Holland
Allen Hori
Robert Indiana
Alfredo Jaar
Mitchell Kane
Joyce Kozloff
Michael Krueger
Alfred Leslie
Donald Lipski
Tom Loeser
Truman Lowe
Jim Lutes
Phyllis McGibbon
Duane Michals
Barry Moser
Jim Nutt
Gladys Nilsson
Dennis Oppenheim
George Rickey
Alison Saar
Italo Scanga
Buzz Spector
William Struve
James Suris
Gail Swanlund
Karen Thompson
Jack Tworck
Jerry Uelsmann
Ursula Von Rydingsvard
Margaret Wharton
Frances Whitehead

Admission

Admission to Herron School of Art is based on the student's previous school record. Herron does not require a portfolio review for admission. All students are admitted into Herron as pre-fine art or pre-art education majors. To be admitted to a major, a student must go through the portfolio review process, which occurs after students complete the freshman Foundation Program courses and 9 credit hours of

sophomore-level studio work. Students interested in art history may be admitted directly into that program and do not have to go through the portfolio review process.

Students enrolled in other schools or divisions of Indiana University—Purdue University Indianapolis may enroll in the elective studio courses. Arrangements may be made for enrolling in Herron courses at the time of the student's regular registration.

Admission with Transfer Credit

Students with transfer credit from other colleges or universities may be considered for the Herron School of Art. Transfer students may receive credit for successfully completing academic courses (C or higher) of equivalent content from other regionally accredited institutions. Transfer credit for studio art courses, however, is granted only from institutions with National Association of Schools of Art and Design (NASAD) accreditation. Credits for studio art courses from institutions not accredited by NASAD may be eligible for evaluation toward a Herron degree by individual degree programs. Transfer students ready to register for 300-level studio courses must submit a portfolio for review. Students who are eligible for advancement will be notified by the Student Services Office after admission to the university. Review dates and guidelines will be determined by the individual degree programs.

Students who are already in the Indiana University system may transfer to Herron School of Art at any time. To transfer they must have a 2.0 cumulative grade point average. They should contact Herron's Student Services Office, Herron Fesler Hall, Room 201, telephone (317) 920-2416, or email herrart@iupui.edu.

Readmission of Former Students

Former students in good standing who withdraw in accordance with the regulations of the school and who desire to return within two years should notify the Herron Student Services Office. Students who want to be readmitted and have been gone for two or more years must follow the current bulletin requirements and contact the Student Services Office.

Former students whose standing was not satisfactory at the time of withdrawal, former students who withdrew without compliance with the regulations of the school, and former students who were terminated on the basis of performance must apply in writing to the Herron Student Services Office, 1701 N. Pennsylvania Street, Indianapolis, IN 46202, for consideration by the Student Affairs Appeals Committee. See section on "Petition for Readmission."

Academic Sequencing

The studies at the Herron School of Art are sequential, in that a student moves through definite programs of prescribed and optional studies on a year-to-year basis until all the requirements for a particular degree are fulfilled.

Students who fall behind in fulfilling degree requirements at a particular year's level will be

expected to fulfill those requirements in sequence, either in conjunction with or in place of courses offered at the next level. Conflicts in scheduling may occur when students try to make up requirements, and they may find that their enrollment must be extended beyond the original graduation date. Students are therefore strongly advised to carefully plan their academics.

Herron Expenses

A Herron student will spend approximately \$1,000 on books and supplies during a school year. IUPUI maintains an art supply shop and bookstore at Herron. Modest lab fees are charged for materials used in certain studio classes. These fees are subject to change. Please request current information. Information about university fees can be found under "Fees" in this bulletin's section on "Indiana University."

Review for Advancement

In order for students to be admitted into degree programs at Herron School of Art, they are required to pass a portfolio review for advancement. (This requirement does not apply to art history majors.)

To be admitted to the degree programs, students must pass the portfolio review; therefore, completion of portfolio review requirements does not guarantee admission into the degree program. The decision of the faculty review is final.

For students interested in a fine arts degree, the portfolio review typically occurs during the sophomore year after the student completes all of the foundation requirements, including two semesters of art history and one semester each of English composition and English literature, and 9 credit hours of 200-level studio courses. The student must also have a 2.5 cumulative studio grade point average and a 2.0 overall cumulative grade point average. A student may not take any 300-level or higher studio classes until advancement has been approved.

Students interested in art education must complete their foundation year to go through the review process. They must also have a 2.5 cumulative grade point average. They will not be able to advance in art education until they pass the review and Pre-Professional Skills Test (PPST), and are accepted into the IUPUI School of Education.

Transfer students ready to register for 300-level courses *must* submit a portfolio for review.

Students who are eligible for advancement will be notified by the Student Services Office. Review dates and guidelines will be determined by the individual degree programs.

Academic Policies and Regulations

Attendance

The work of the school is intensive; therefore, prompt and regular attendance is required. If at any time a student has a legitimate reason for not attending class, immediate notification should be made to the faculty secretary. Attendance requirements are set by individual instructors. Students should keep

themselves informed of these requirements and are held responsible for fulfilling them.

Dean's List

Degree-seeking students in good standing who have a grade point average of 3.33 or higher with a load of 12 or more credit hours for a given semester will be placed on the Dean's List for that semester. Students carrying fewer than 12 credit hours and a grade of Incomplete in one or more classes will not be placed on the Dean's List until the Incomplete is removed from the semester record. Students carrying 12 credit hours and taking a course as Pass/Fail will not qualify for the Dean's List.

Academic Probation

Students in the Herron School of Art are expected to maintain a cumulative grade point average (GPA) of at least a 2.00. If they do not, the dean will give them formal written notice of probation. Students will be placed on academic probation for the academic session following one in which they fail to attain the 2.00 cumulative grade point average. They will also be placed on academic checklist, which will prohibit them from registering for future semesters until they meet with a student services representative.

Academic Dismissal

A student in the Herron School of Art may be dismissed from the school when, in the judgment of the faculty, the student has ceased to make satisfactory progress toward a degree. When an undergraduate student fails to attain a C (2.00) cumulative grade point average *in any two academic semesters*, the student is automatically considered to be making unsatisfactory progress toward a degree and is therefore eligible for dismissal.

The student will be informed in writing by the dean of the school. The student will be withdrawn from any courses in which he or she is currently enrolled and will be placed on academic checklist, which will prevent registration for future semesters. Any student who has been dismissed under these provisions may be readmitted only after one year has elapsed.

Petition for Readmission

Students under dismissal may appeal in writing to the Herron Student Affairs Committee. The committee may readmit the student if it decides that evidence of changed circumstances indicates the probability of improved academic performance. Each petition is considered individually, and a decision is based on the student's academic history and personal circumstances.

Students readmitted through this appeal process must earn a minimum cumulative semester GPA of 2.30 or above for the returning semester. Readmitted students failing to achieve the cumulative 2.30 grade point average are permanently dismissed from the Herron School of Art program.

Academic Forgiveness

The Herron School of Art forgiveness policy applies to former IUPUI students pursuing a first undergraduate degree who have been away from IUPUI and have not attended any other college or university, including any campus of IU, for at least three years. Only students

who meet the three-year requirement and have a grade point average not greater than 2.0 will be considered for the forgiveness policy. If the student's petition is approved, all previously taken courses will remain on the permanent record but will not count toward the student's grade point average (GPA). Only course credits with grades of A through C+, P, and S will count toward degree completion but again will not count towards the student's GPA. If a student's petition for forgiveness is approved, the student enters Herron with a recalculated cumulative grade point average of 0.00, after which all the rules of academic probation and dismissal for Herron School of Art will apply. After approval, the student must complete a minimum of 32 credit hours at IUPUI. All eligible students will be admitted under the Herron School of Art curriculum in place at the time of admittance. If the petition is approved, the Herron Student Affairs committee has the authority to impose stipulations or conditions upon the enrollment of the student. Herron School of Art reserves the right to deny the acceptance of credits from obsolete courses when the student has been away from Herron for three or more years. Forgiveness may be invoked only once.

Pass-Fail Option

The Pass-Fail option is available to Herron undergraduate students in good standing for a maximum of 12 credit hours of academic elective study within the total degree requirement. This option may not be used for studio courses or the required freshman English courses, and it is limited to two courses per year, including summer instruction. Under the Pass-Fail option, a grade of P (Pass) will not be used in computing the grade point average, but an F grade will be so used. A grade of P will not be subsequently changed to an A, B, C, or D.

Students electing to take the Pass-Fail option in an elective course must complete the required form in the Student Services Office before the deadline published each semester in the IUPUI *Schedule of Classes*.

Graduation

Students expecting to complete a course of study leading to the degree of Bachelor of Fine Arts, Bachelor of Art Education, Bachelor of Arts, or Master of Art Education must be in good standing and file an application with the Herron Student Services Office by October 15 during the academic year in which they wish to graduate. After they file this application, their records will be reviewed, and they will be notified of graduation status by the end of the fall semester.

General Requirements for a Baccalaureate Degree

1. Complete the minimum credit hours as required by degree program.
2. Achieve a minimum overall grade point average of 2.0.
3. Achieve a minimum Herron studio grade point average of 2.0.
4. Be in residence at Herron for at least two semesters, and complete, while at Herron, at least

24 credit hours of studio work at the 300 level or higher.

Requirements for a Second Degree

Holders of bachelor's degrees who have additional academic objectives may, if admitted by the Herron School of Art, pursue a second bachelor's degree. The student must earn a minimum of 24 additional credit hours in residence and meet the requirements of the Herron School of Art and of the program in which they are enrolled.

Herron Scholarships

Entering Student Portfolio Scholarships

Students who are applying to Herron for the first time are eligible for scholarships based on a portfolio review. General scholarship money is available to all entering portfolio applicants. The Helen Mowrey scholarship gives priority to Marion County students graduating from Lawrence or Warren Township's high schools. The deadline for all scholarship applications is the April 1 before enrollment.

Portfolio Criteria Members of the Herron faculty admissions committee will review portfolios based on the following criteria: Application of principles of two- and/or three-dimensional work, creativity and imagination, ability in drawing (preferably drawing from life as opposed to copying from photographs or other art work), and ability in the use of color, materials, and technique. Applicants must submit a portfolio of 10 to 15 pieces of original art works. Size, media, and technique are left to the discretion of the applicant.

Continuing Student Scholarships

Herron students are the only competitors for many scholarships donated directly to the school. The number of these scholarships varies, they may be for either full or partial expenses, and they are awarded on the recommendation of the Herron School of Art faculty. In addition to the scholarships mentioned above, cash awards are given annually for outstanding achievement.

Student Services

Student Activities

Student activities vary from year to year but have in the past included parties, dances, field trips, programs by visiting artists, and films. The exhibitions and opening receptions of the Herron Gallery are well attended by students and involve considerable student participation. Herron students may also avail themselves of student-sponsored activities and facilities at other schools of the university.

The IUPUI Student Assembly represents the Herron student body at the university level. Herron also maintains a Student Senate of its own.

Alumni Association

Membership in the Herron Alumni Association is open to all former students who have completed one full semester in good standing. Graduates and former

students are urged to keep the alumni office informed of their latest activities and addresses. Each graduate of the Herron School of Art receives a one-year membership in the Herron Alumni Association as a gift of the association.

Career Counseling and Placement

Careers in art are almost as varied as the artists themselves. Graduates of the Herron School of Art can be found in professional positions throughout the United States and in various parts of the world. Many Herron graduates in the fine arts go on to graduate schools to continue their art preparation. Many, however, also go directly into art professions, some working full time producing their art, others working as artists and illustrators for private and public agencies, in museums, in galleries, and in many other settings.

Graduates of the Visual Communication Program have many career options open to them, including design positions in business, industry, and academic settings, as well as advertising agencies and design studios. Art education graduates from Herron have certification to teach in the public schools in Indiana. Many also teach in private settings or work with museums or public agencies concerned with art and recreational media. Some graduates in art education go on to earn master's degrees and become permanently certified. For a list of 60 different career options in art, contact the Herron Student Services Office.

Information about employment in specific careers is available from placement offices, admissions offices, and department coordinators.

IUPUI, in cooperation with the Herron School of Art, works on the local and national levels to assist students and alumni in career placement. Counseling coordinators provide recommendations and maintain a schedule of on-campus recruiting dates by corporate and governmental representatives.

Herron School of Art has a World Wide Web page for all students and graduates who are seeking jobs. It is updated weekly and lists part-time, full-time, and freelance jobs for all fine arts majors. The jobs line page is located in the student services section of the Herron Web page at www.herron.iupui.edu/student_services

International Travel

The experience and wisdom gained through travel abroad is vital to a student's artistic growth. Students emerge from their adventures abroad with an expanded knowledge of art, a deeper appreciation for another person's culture and way of life, and a different perspective on how they view art. Herron has long recognized the value of such experiences and offers summer programs to China, Vietnam, Ireland, France, England, the Netherlands, and Belgium. The school plans to expand on these offerings as resources become available and as new relationships develop with other schools around the world. Scholarship opportunities are available through Herron on a competitive basis. Please see the international travel contact at Herron for details on each program.

School Requirements: First-Year Foundation Program

Foundation Division Coordinator William Potter

The Foundation Program serves as a base for future work at Herron. The Foundation Program student develops drawing skills, powers of observation, an understanding of visual principles, and a working knowledge of materials and techniques, while becoming more knowledgeable about art history. The program is constructed so that students, through self-examination and faculty counseling, will be able to select intelligently the area in which they will major when the Foundation Program has been completed. Much of the success of Herron programs has been due to the comprehensive strength of the Foundation Program and the basic preparation that it provides.

The Foundation Program or its equivalent in previously earned credit (as determined by the Admissions Committee) is a prerequisite for work in the fine art and education degree programs.

Foundation Program Curriculum

Semester I

		credits
F101	Foundation Studio I	4
C111 ¹	Three-dimensional Design	3
D101	Life and Object Drawing I	3
H103	Introduction to Contemporary Art	3
ENG W131 ²	Elementary Composition I, <i>or</i>	3
L115	Literature for Today <i>or</i>	
L105	Appreciation of Literature	

Semester II

		credits
F102	Foundation Studio II	4
C121 ¹	Design Theory	3
D102	Life and Object Drawing II	3
H101	History of Art I	3
ENG W131 ²	Elementary Composition I, <i>or</i>	3
L115	Literature for Today <i>or</i>	
L105	Appreciation of Literature	
Total credit hours		32

¹If a student takes C111 in the fall, then he or she takes C121 in the spring. This can also be done in the reverse order.

²Students not scoring well on the writing placement test will be required to register for W001 Fundamentals of English, a developmental noncredit course, before taking W131 Elementary Composition I.

* Accomplished as part of the Foundation Program.

Bachelor of Fine Arts Programs

Ceramics, Furniture Design, General Fine Arts, Painting, Photography, Printmaking, Sculpture, Visual Communication

General Academic Requirements

Students in all Herron B.F.A. degree programs must successfully complete a program of general academic courses, as well as more concentrated studies within their specialties, to earn their degrees. Students are required to have 15 credit hours of art history and 30 credit hours distributed in the humanities, life and physical sciences, and social and behavioral science.

The list that follows provides details on general academic requirements. See the description of each major program in the sections that follow for a list of specialty requirements.

General Academic Requirements for all B.F.A. Students

Art History H101*, H102, H103*, and 6 additional credit hours in art history.
Total: 15 credits

Humanities English W131*, L115 or L105*, and 6 additional credit hours selected from
Afro-American Studies
Classical Studies
Communications Studies
Comparative Literature
English
Film Studies
Folklore
Foreign Language
Journalism
Music
Philosophy
Religious Studies
Speech and Hearing
Total: 12 credits

Life and Physical Science 6 credits from

Anatomy
Astronomy
Biology
Chemistry
Computer Science
Food and Nutrition
Geology
Mathematics
Physics
Physical Geography (G107, G303, and G404)
Total: 6 credits

Social and Behavioral Science 6 credits from

Anthropology
Business
Economics
Nonphysical Geography
History
Labor Studies
Political Science
Psychology

Public and Environmental Affairs
Social Work
Sociology
Total: 6 credits

Academic Electives An additional 6 credits must be taken from one or more of the above groups, i.e., Humanities, Life and Physical Sciences, Social and Behavioral Science. Art history may *not* be used to satisfy this academic elective requirement.

Total: 6 credits

Ceramics

The ceramics curriculum develops an understanding of ceramics as an expressive artistic medium in contemporary society. The study of ceramic materials and techniques is balanced with the study of historical tradition and contemporary trends. The ceramic studio is well equipped so that students experience the variety of technologies used by contemporary artists. The program provides a solid foundation for students pursuing graduate studies or a studio art career.

Ceramics Suggested Plan of Study

Sophomore Year

		credits
<i>Fall</i>		
D201	Drawing III	3
H102	History of Art II	3
C204 ¹	Beginning Ceramics, Hand Building	3
	Studio elective	3
	Humanities elective	3
Total		15

		credits
<i>Spring</i>		
D202	Drawing IV	3
C206 ¹	Beginning Ceramics, Wheel Throwing	3
	Studio elective	3
	Art History elective	3
	Social/Behavioral Science elective	3
	Humanities elective	3
Total		18

Junior Year

		credits
<i>Fall</i>		
C304	Ceramics III <i>or</i>	
C308	Intermediate Wheel Throwing	3
C307	Clay and Glaze Materials	3
	Studio elective	3
	Art History elective	3
	Social/Behavioral Science elective	3
	Life and Physical Science elective	3
Total		18

		credits
<i>Spring</i>		
C305	Ceramics IV	3
	Studio electives	9
	Life and Physical Science elective	3
Total		15

¹ C204 and C206 can be taken either in the fall or the spring semester.

Senior Year

<i>Fall</i>		credits
C400	Individual Research in Ceramics	3
Studio Elective		3
400-level Ceramics studio		3
J400	Practical Concerns for Studio Artists <i>or</i>	
J410	A Critical Approach to Art: Seminar	3
Academic elective		3
Total		15
<i>Spring</i>		credits
C400	Individual Research in Ceramics	3
C405	Individual Research in Ceramics	3
400-level Ceramics studio		3
J410	A Critical Approach to Art: Seminar <i>or</i>	
J400	Practical Concerns for Studio Artists	3
Studio elective		3
Academic elective		3
Total		18

Furniture Design

Herron School of Art has established a tradition of providing a rich and stimulating environment for aspiring studio art furniture makers. The Furniture Design Program curriculum provides students the framework for their development as designers and makers. The furniture design program's commitment to excellence is reflected in the high standards of professionalism achieved by its graduates.

Courses are taught by experienced and accomplished faculty. Students have the use of a well-equipped and maintained woodworking shop/studio. Introductory courses stress the importance of drawing, conceptualizing skills, design research and development, construction techniques and technologies, model making, art furniture history, and the completion of full-size furniture prototypes.

Intermediate and advanced courses challenge students to continue to develop their technical skills and begin to forge a personal design aesthetic. Career goals and strategies are explored and developed. Classes are augmented with visiting artists, field trips, student/professional design competitions and shows, and other pertinent professional activities.

Furniture Design Suggested Plan of Study**Sophomore Year**

<i>Fall</i>		credits
D201	Drawing III	3
H102	History of Art II	3
Q241	Beginning Furniture Design I	3
Studio elective		3
Humanities elective		3
Total		15
<i>Spring</i>		credits
D202	Drawing IV	3
Q242	Furniture Design II	3
Studio elective		3
Art History elective		3
Social/Behavioral Science elective		3
Humanities elective		3
Total		18

Junior Year

<i>Fall</i>		credits
Q341	Furniture Design III	6
Studio elective		3
Art History elective		3
Social/Behavioral Science elective		3
Life and Physical Science elective		3
Total		18
<i>Spring</i>		credits
Q342	Advanced Furniture Design IV	6
Studio electives		6
Life and Physical Science elective		3
Total		15

Senior Year

<i>Fall</i>		credits
Q441	Furniture Design V	6
J400	Practical Concerns for Studio Artists <i>or</i>	
J410	A Critical Approach to Art: Seminar	3
Academic elective		3
Studio elective		3
Total		15
<i>Spring</i>		credits
Q442	Furniture Design VI	6
J410	A Critical Approach to Art: Seminar <i>or</i>	
J400	Practical Concerns for Studio Artists	3
Studio electives		6
Academic elective		3
Total		18

General Fine Arts

The General Fine Arts Program allows students to participate in a wide range of studies without the need to specify a major. Through careful counseling, individual goals and directions are established, and the student is assisted in setting up a well-coordinated program of fine art studies. The flexibility of this program enables the student to combine studies in painting, drawing, printmaking, sculpture, ceramics, woodworking, design, etc., to achieve objectives in keeping with specific goals. Opportunities following graduation are essentially the same as for students identifying with a single program.

General Fine Arts Suggested Plan of Study**Sophomore Year**

<i>Fall</i>		credits
D201	Drawing III	3
H102	History of Art II	3
200-level studio elective		3
Studio elective		3
Humanities elective		3
Total		15

Spring

D202	Drawing IV	3
200-level studio elective		3
Studio elective		3
Art History elective		3
Social/Behavioral Science elective		3
Humanities elective		3
Total		18

Junior Year

<i>Fall</i>		credits
300-level studio elective		3
Studio electives		6
Art History elective		3
Social/Behavioral Science elective		3
Life and Physical Science elective		3
Total		18

Spring

300-level studio elective		3
Studio electives		9
Life and Physical Science elective		3
Total		15

Senior Year

<i>Fall</i>		credits
400-level studio electives		6
J400	Practical Concerns for Studio Artists <i>or</i>	
J410	A Critical Approach to Art: Seminar	3
Studio electives		3
Academic elective		3
Total		15

<i>Spring</i>	credits
400-level studio electives	6
J410 A Critical Approach to Art: Seminar <i>or</i>	
J400 Practical Concerns for Studio Artists	3
Studio electives	6
Academic elective	<u>3</u>
Total	18

Painting

The Painting Program features balanced instruction and a diverse faculty presenting a wide range of viewpoints. This well-rounded educational preparation provides students with the opportunity to acquire the knowledge and ability essential to creative activity. Emphasis is placed on the development of critical thinking skills, refinement of intellectual processes, and exposure to traditional and contemporary aspects of the painter's craft.

Painting Suggested Plan of Study

(Students must earn a B– or better in HER P301, P302, P303, and P304 in order to enroll in HER P401 or P402.)

Sophomore Year

<i>Fall</i>	credits
D201 Drawing III	3
H102 History of Art II	3
P201 Painting I	3
Studio elective	3
Humanities elective	<u>3</u>
Total	15

<i>Spring</i>	credits
D202 Drawing IV	3
P202 Painting II	3
Studio elective	3
Art History elective	3
Social/Behavioral Science elective	3
Humanities elective	<u>3</u>
Total	18

Junior Year

Painting majors are required to take 6 credit hours of painting each semester in their junior year.

<i>Fall</i>	credits
P301 Painting III	3
P303 Concepts in Figuration I	3
Studio elective	3
Art History elective	3
Social/Behavioral Science elective	3
Life and Physical Science elective	<u>3</u>
Total	18

<i>Spring</i>	credits
P302 Painting IV	3
P304 Concepts in Figuration II	3
Studio electives	6
Life and Physical Science elective	<u>3</u>
Total	15

Senior Year

Students must have a C grade point average or better in junior painting to enter the fourth year of painting.

<i>Fall</i>	credits
P401 Painting V	6
Studio elective	3
J400 Practical Concerns for Studio Artists <i>or</i>	
J410 A Critical Approach to Art: Seminar	3
Academic elective	<u>3</u>
Total	15

<i>Spring</i>	credits
P402 Painting VI	6
Studio electives	6
J410 A Critical Approach to Art: Seminar <i>or</i>	
J400 Practical Concerns for Studio Artists	3
Academic elective	<u>3</u>
Total	18

Photography

Both black and white and color photography are integral to the department's approach to visual literacy. Emphasis is placed on the student's personal growth and aesthetic development, technical facility in mechanical areas, and a thorough understanding of photography's place in history and its different forms and applications. Primarily through the production of artworks, as well as through lectures, demonstrations, and readings, students become acquainted with the position of photography in contemporary art. Fine art photographers who work in a wide variety of genres are studied.

Herron's photo facilities include multiple black and white labs, individual color darkrooms, special problem processing areas, a computer lab, a shooting studio, and a gallery. Faculty members who are dedicated to their own professional development and set high standards for the department teach the curriculum.

Techniques covered in the program include basic and advanced black and white printing, Type-C color printing, Ilfochrome color printing, non-silver alternative processes, and developing control. In addition, mixed media, installation, time-based electronic media, digital imaging, video, use of the view camera, and studio lighting are taught. The department also provides students with access to professional equipment, including medium format and 4x5 view cameras, light kits, light meters, tripods, Polaroid equipment, and video cameras.

Photography Suggested Plan of Study

Sophomore Year

<i>Fall</i>	credits
D201 Drawing III	3
H102 History of Art II	3
K201 Photography I	3
Studio elective	3
Humanities elective	3
*K211 Introduction to Electronic Media	<u>3</u>
Total	15 or 18

<i>Spring</i>	credits
*D202 Drawing IV <i>or</i>	
D211 Communicative Drawing	3
K202 Photography II	3
Studio elective	3
Art History elective (Photo History)	3
Social/Behavioral Science elective	3
Humanities elective	<u>3</u>
Total	15 or 18

Junior Year

<i>Fall</i>	credits
K301 Photography III	3
K303 Color Photography	3
Studio elective	3
Art History elective	3
Life and Physical Science elective	3
Social/Behavioral Science elective	<u>3</u>
Total	18

<i>Spring</i>	credits
K302 Photography IV	3
K304 Advanced Color Photography <i>or</i>	
K300 Advanced Digital Imaging	3
Studio electives	6
Life and Physical Science elective	<u>3</u>
Total	15

Senior Year

<i>Fall</i>	credits
K401 Advanced Photography	6
Studio elective	3
J400 Practical Concerns for Studio Artists <i>or</i>	
J410 A Critical Approach to Art: Seminar	3
Academic elective	3
Total	15

<i>Spring</i>	credits
K402 Advanced Photography	6
K 311/ K 411/ K 412 Individual Research in Photography	3
J410 A Critical Approach to Art: Seminar <i>or</i>	
J400 Practical Concerns for Studio Artists	3
Studio elective	3
Academic elective	<u>3</u>
Total	18

Printmaking

The printmaking curriculum provides a broad and intensive experience for printmaking majors and studio elective opportunities for other fine art, visual communication, and art education students. Course work in lithography and etching is offered at

*Students should take K211 or D202 or D211. K211 is offered only during the fall semester. Students must have completed K201 prior to K211. If students choose to take D202 or D211, they should take those courses in the spring, after they have completed D201.

beginning, intermediate, and advanced levels every semester. Processes covered include plate and stone lithography and the intaglio processes of etching, engraving, and aquatint. Additional courses include printing in monotype, woodcut, and silkscreen. Spacious, well-equipped, accessible facilities for the study of these traditional approaches to printmaking are augmented by additional facilities for the investigation of digital and photomechanical processes.

Basic courses establish a solid, comprehensive foundation of traditional technical skills unique to the printed image, while instruction emphasizes the development of drawing, self-expression, and concept. At the intermediate and advanced levels, students continue to acquire new technical skills. There is extensive work in color, as the emphasis shifts to imagery, concept, and critical thinking.

Advanced students are given considerable autonomy, working largely in self-defined directions in consultation with faculty while focusing on printing technologies most appropriate for individual development. Group critiques, field trips, portfolio projects, student exhibition opportunities, and workshops and lectures by visiting artists complement the studio experience by providing critical discussion, participation, incentives, and role models.

Printmaking Suggested Plan of Study

Sophomore Year

<i>Fall</i>		credits
D201	Drawing III	3
H102	History of Art II	3
G201	Etching I <i>or</i>	
G202	Lithography I <i>or</i>	
G205	Monotype/Woodcut	3
	Humanities elective	3
	Studio elective	3
Total		15

<i>Spring</i>		credits
D202	Drawing IV	3
G201	Etching I <i>or</i>	
G202	Lithography I <i>or</i>	
G205	Monotype/Woodcut	3
	Studio elective	3
	Art History elective	3
	Social/Behavioral Science elective	3
	Humanities elective	3
Total		18

Junior Year

<i>Fall</i>		credits
<i>Choose two of the following three courses:</i>		
G301	Etching II <i>or</i>	
G302	Lithography II <i>or</i>	
G309	Monotype/Woodcut II	6
	Studio elective	3
	Art History elective	3
	Social/Behavioral Science electives	3
	Life and Physical Science elective	3
Total		18

<i>Spring</i>		credits
G303	Etching III	3
G304	Lithography III	3
	Studio electives	6
	Life and Physical Science electives	3
Total		15

Senior Year

<i>Fall</i>		credits
G401	Printmaking III	6
	Studio elective	3
J400	Practical Concerns for Studio Artists <i>or</i>	
J410	A Critical Approach to Art: Seminar	3
	Academic elective	3
Total		15

<i>Spring</i>		credits
G402	Printmaking IV	6
	Studio electives	6
J410	A Critical Approach to Art: Seminar <i>or</i>	
J400	Practical Concerns for Studio Artists	3
	Academic elective	3
Total		18

Sculpture

Herron's sculpture program encourages consistent growth, from the introductory three-dimensional experience through the fourth and final year of advanced work. The multimedia fabrication and foundry facilities provide a level of sophisticated technical experience unique to the undergraduate level.

As sophomores, sculpture students are introduced to a wide spectrum of techniques and processes, which include metal fabrication, casting, woodcarving, construction, resins, plastics, and stone carving, as well as work in nontraditional materials. Through a team-teaching approach, students are exposed to a broad base of practical information, critical analysis, and creative discourse.

As juniors and seniors, students continue investigations and creative pursuits begun in their sophomore year. Juniors and seniors work more independently as they sharpen their individual focus and prepare for graduate school or professional work. Graduates of the sculpture program have had the opportunity to investigate all three-dimensional media and are prepared to continue independent development.

Sculpture Suggested Plan of Study

Sophomore Year

<i>Fall</i>		credits
D201	Drawing III	3
H102	History of Art II	3
S201	Sculpture I	3
	Studio elective	3
	Humanities elective	3
Total		15

<i>Spring</i>		credits
D202	Drawing IV	3
S202	Sculpture II	3
	Art history elective	3
	Studio elective	3
	Humanities elective	3
	Social/Behavioral Science elective	3
Total		18

Junior Year

<i>Fall</i>		credits
S301	Sculpture III	6
	Studio elective	3
	Art History elective	3
	Social/Behavioral Science elective	3
	Life and Physical Science elective	3
Total		18

<i>Spring</i>		credits
S302	Sculpture IV	6
	Studio electives	6
	Life and Physical Science electives	3
Total		15

Senior Year

<i>Fall</i>		credits
S401	Sculpture V	6
	Studio elective	3
J400	Practical Concerns for Studio Artists <i>or</i>	
J410	A Critical Approach to Art: Seminar	3
	Academic elective	3
Total		15

<i>Spring</i>		credits
S402	Sculpture VI	6
	Studio electives	6
J410	A Critical Approach to Art: Seminar <i>or</i>	
J400	Practical Concerns for Studio Artists	3
	Academic elective	3
Total		18

Visual Communication

Designers essentially organize information and give visual form to ideas. Herron's Visual Communication Program emphasizes the process of solving design problems. Students are taught to develop thinking and problem-solving skills and to apply them using digital, interactive, and traditional media. Beginning students are challenged by design problems structured to provide balanced theoretical and technical growth experiences. Advanced students carry design problems from initial planning through final production phases. They are also given the opportunity to use their skills in professional practice situations. The program owes much of its success to the fact that Herron takes advantage of the rich resources of the thriving design and graphic arts industry in Indianapolis.

Students proceeding to the junior- and senior-level Visual Communication program must maintain a Herron studio grade point average of 3.0 in their

major studio courses and an overall grade point average of 2.0. Students falling below these requirements will be notified, placed on probation, and required to submit a portfolio for review. Students on probation failing to submit a portfolio will be denied advancement to upper-level Visual Communications courses.

Graduates of the program hold positions in the private and public sectors, including design offices, advertising agencies, and communication departments within corporations, government, and nonprofit organizations.

Visual Communication Suggested Plan of Study

Sophomore Year

<i>Fall</i>		credits
A201	Visual Communication I	3
A251	Typography I	3
D211	Communicative Drawing <i>or</i>	
K201	Photography I	3
A271	Computers in Visual Communication I	3
H102	Art History II	3
Total		15

<i>Spring</i>		credits
A202	Visual Communication II	3
A252	Typography II	3
D211	Communicative Drawing <i>or</i>	
K201	Photography I	3
A272	Computers in Visual Communication II	3
	Art History elective	3
	Humanities elective	3
Total		18

Junior Year

<i>Fall</i>		credits
A301	Visual Communication III	4
A331	Typography III	3
A341	Production for Design	3
	Art History elective	3
	Life and Physical Science elective	3
Total		16

<i>Spring</i>		credits
A302	Visual Communication IV	4
	Studio electives	6
	Life and Physical Science elective	3
	Social/Behavioral Science elective	3
Total		16

Senior Year

<i>Fall</i>		credits
A401	Visual Communication V	5
	Studio electives	6
	Humanities elective	3
	Social/Behavioral Science elective	3
Total		17

<i>Spring</i>		credits
A402	Visual Communication VI	5
	Studio electives	6
	Academic electives	6
Total		17

Capstone Experience

As a requirement for graduation, students in all programs must successfully complete a senior seminar class or an approved equivalent course or project that includes an advanced writing experience. Please refer to J400 and J410 under "Art Degree Senior Capstones and Research Courses" in the "Course Descriptions." While we recommend that students take these classes during the senior year, they can be taken in the junior year for more flexibility.

As a requirement for the B.F.A. degree, students may be required to display a body of work in a one-person or small group show, a portfolio, or other approved exhibit option. Students may also be required by their departments to turn in up to five slides of their work, which will become the property of the school.

Summary of Credits Required for B.F.A. Majors

Ceramics, Furniture Design, General Fine Arts, Painting, Photography, Printmaking, and Sculpture

	credits
Foundation (Studio)	20
Studio (30 credits in major)	60
Art History	15
English	6
Humanities	6
Social and Behavioral Science	6
Life and Physical Science	6
Academic Electives**	6
Capstone Experience	6
B.F.A. Degree Total	131

Visual Communication

Foundation (Studio)	20
Studio (42 credits in major)	66
Art History	15
English	6
Humanities	6
Social and Behavioral Science	6
Life and Physical Science	6
Academic Electives**	6
B.F.A. Degree Total	131

Art Education Programs

Division Coordinator Dr. Cindy Bixler Borgmann

Students wishing to become certified to teach in public schools may pursue either a Bachelor of Art Education or a Master of Art Education at Herron.

The Art Education Program of the Herron School of Art is offered in conjunction with the School of Education of Indiana University Bloomington and IUPUI. All degree requirements of the Art Education Program satisfy Rules 46-47 of the Indiana

** Academic elective courses can be from Humanities, Social and Behavioral Science, or Life and Physical Sciences.

Department of Public Instruction. A student may satisfy certification requirements to teach art in the public schools of Indiana by being an art major in the Herron School of Art.

The Bachelor of Art Education Degree

The Bachelor of Art Education (B.A.E.) Program leads to certification (teaching license) in art education in all grades (K-12) in the state of Indiana. The program features a commitment to practical experience integrated with a strong studio program. Throughout the program, students increase skill and knowledge in the content of art education, including art history, criticism, aesthetics, studio, and teaching methodology. Students gain experience by teaching school-age students in a variety of programs and settings, including Art Talks (surrounding elementary and secondary schools), Visiting Artist: Art to School (Herron Gallery), Search (Indianapolis Museum of Art), Saturday School (Herron campus), at the Indianapolis Museum of Art, and student teaching. In addition, students observe and participate in art programs and events around the city.

Students enrolled in the B.F.A. program at the Herron School of Art may also pursue an All-Grade Indiana State Teachers License in Art. Students wishing to pursue certification need to declare a second major (B.A.E.) and follow the requirements for this degree as well as the B.F.A. Students should meet regularly with advisors from both major areas to ensure efficient completion of both degrees. Transfer students holding a baccalaureate degree and M.A.E. candidates without a teaching license may also pursue certification to teach in the public schools in Indiana. These students must have completed a minimum of 50 credit hours in undergraduate art courses, have a 2.5 cumulative grade point average, have submitted a portfolio of studio work, and be admitted to the Teacher Education Program in the School of Education at IUPUI.

Curriculum Requirements for the B.A.E. Degree

Certification Requirements, Rules 46-47 of the Indiana Department of Public Instruction

Academic Requirements—Distributive

Art History: Total 12 credits

H101-H102-H103 and 3 additional art history credit hours

Humanities: Total 12 credits

English Composition ENG W131

Communication Studies COMM R110

3 credit hours in another writing or public speaking course. See an advisor for a list of current classes that fulfill this oral/written skills requirement.

3 credit hours from the following:

English

Communication Studies

Comparative Literature

Folklore
Foreign Language
Journalism
Music
Philosophy
Religious Studies

Life and Physical Science: Total 9 credits

From the following group (a minimum of 3 credits in biology is required):

Anatomy
Astronomy
Biology (Required)
Chemistry
Computer Science
Food and Nutrition
Physical Geography
Geology
Mathematics
Physics
Physiology

Social and Behavioral Science: Total 9 credits

EDUC P254-required

From the following group:

Anthropology
Business
Economics
Nonphysical Geography
History
Political Science
Psychology
Public and Environmental Affairs
Social Work
Sociology

Professional Education: Total 31-35 credits

The following education courses are required in order to fulfill certification Rules 46-47 of the Indiana Department of Public Instruction:

PPST Preprofessional Skills Test¹ (0 cr.)
W200 Microcomputing for Education: An Introduction¹
K205 Introduction to Exceptional Children
M300/M201 Multicultural Education and Laboratory/Field Experience
M469/M409 Content Area Literacy and Laboratory/Field Experience
H340 Education and American Culture
M314 General Methods
M482 Student Teaching: All Grades

Art Education: Total 10 credits

The following courses are required:

M371 Foundations of Art Education
M472/M400 Teaching Art in Elementary Schools (P: M371, PPST) and Laboratory/Field Experience for Seniors
M473/M401 Teaching Art in Secondary Schools and Laboratory/Field Experience for Seniors (P: M371, C311)

Studio: Total 50 credits

Foundation-Year Program 20
D201-D202 Drawing III and IV 6
C311 Art Education Studio Survey 3
Three-dimensional studio (ceramics, furniture design, sculpture) 6

Herron Studio Course 300/400 level 6
(HER C312 and C412 do not count toward fulfilling the 300- and 400-level requirements)
Studio electives 9

Suggested Plan of Study for B.A.E. and Certification

First Year

Foundation Program (Herron studio courses, H101-H103, and English W131)²

Total 32 cr.

Students must pass the Preprofessional Skills Test (PPST) prior to sophomore year.

Sophomore

<i>Fall</i>		credits
H102	Art History II	3
D201	Drawing III	3
COMM R110	Speech Communication	3
200 level studio elective		3
200 level studio elective		3
Social and Behavioral Science		3
Total		18 cr.

<i>Spring</i>		credits
EDUC W200	Microcomputers for Education	3
Art History Elective		3
D202	Drawing IV	3
3-D Studio elective		3
200 level studio elective		3
Life/Physical Science Elective (Biology required)		3
Total		18 cr.

Junior

<i>Fall</i>		credits
EDUC M371	Foundations of Art Ed	4
EDUC K205	Introduction to Exceptional Children	3
EDUC M300/M201	Multicultural Education	3
3-D Studio elective		3
EDUC P254/M201	Educational Psychology for all grades	4
Total		17 cr.

<i>Spring</i>		credits
C111	Art Education Studio Survey	3
EDUC M472/M400	Teaching Art in the Elementary School	3
EDUC M469/M409	Content Area Literacy	3
Oral/Written Expression		3
Advanced Studio (300/400)		3
Social and Behavioral Science		3
Total		18 cr.

¹ These courses must be taken first and passed with a grade of C or higher before acceptance into the Teacher Education Program. Failure to pass these courses or the Preprofessional Skills Test will prohibit the student from further study in the Art Education Program. Please see your art education academic advisor before registering for classes.

² Must be completed by the end of the sophomore year.

Senior

<i>Fall</i>		credits
EDUC H340	Education and American Culture	3
EDUC M473/M401	Teaching Art in the Secondary Schools	3
EDUC M314	General Methods	3
Advanced Studio (300/400)		3
Social and Behavioral Science		3
Life and Physical Science		3
Total		18 cr.

<i>Spring</i>		credits
EDUC M482	Student Teaching: All Grades	12-16
Total		12-16 cr.

Summary of Credits Required for the B.A.E. Degree

Studio	50
Art History	12
Professional Education	19
Art Education	10
Student Teaching	12-16
Humanities	12
Life and Physical Science	9
Social and Behavioral Science	9
Total	133-137 cr.

A minimum total of 133 credit hours is required. You may exceed this amount depending on courses selected. Please see an art education advisor *before* registering for classes. All art education students *must* maintain a 2.5 grade point average.

The Bachelor of Art Education plus the Bachelor of Fine Arts

Adding the second degree (B.F.A.) gives students a teaching license plus a strong studio foundation. The B.F.A. provides more than 30 additional credit hours in studio and art history. Students wishing to pursue the double degree should consult with both B.F.A. and B.A.E. advisors each semester. Electives in one degree may be met by fulfilling requirements in the other degree; advisors can counsel students on the most efficient ways to complete the program. The double degree takes a minimum of five and one half years to complete, including summer school.

Admission into the Art Education Program

- Maintain a 2.5 GPA at all times with no lower than a C in all methods courses
- Complete and pass the Preprofessional Skills Test prior to fall of sophomore year
- Pass the portfolio advancement into the Art Education Program in January of sophomore year

Admission into the Teacher Education Program

- Be admitted into the Art Education Program
- Maintain a minimum GPA of 2.5
- Complete formal application to the Teacher Education Program by February 1 of the sophomore year. This online application package

includes application, IUCARE report, criminal history check, PPST scores, and course authorization forms. This application is available **only** at education.iupui.edu/forms/teacher-sec.htm. To access this file, students must have Word 97 for Windows or Word 98 for the Mac. These programs are available in all university computer labs.

Timeline Requirements

- Obtain and read the Herron and School of Education bulletin sections concerning art education programs and student teaching for all-grades students. Students are responsible for planning their own academic progress in this school, so they should meet with their advisors before registration each semester to be sure all requirements are being fulfilled at the proper times.
- Pass the PPST exam prior to sophomore review.
- Register for student teaching *one full academic year prior* to the academic year in which you plan to student teach (i.e., register by October 2002 for teaching in fall 2002 or spring 2003). Failure to register by the published date will delay student teaching for one full year without exceptions. At the same time as registration, students must sign up for an orientation meeting and submit an application to the Student Teaching Office in the School of Education, Education and Social Work Building, ES3165, on the IUPUI campus. Information on this process can be obtained from the Student Teaching Office. Read the section on student teaching for All-Grade Education (K-12 license) in the School of Education section of the IUPUI Campus Bulletin.
- Attain a cumulative GPA of 2.5 in all major area courses and professional education courses; and, a 2.0 in Speech R110 and English W131.
- Register for the *National Teachers Exam (NTE)*—*Art Education Specialty Area* the semester prior to student teaching.
- File an application for graduation in the Herron student services office by October 15 during the year in which students wish to graduate.
- Apply for a teaching certificate during the second semester of the senior year. Obtain this application from Student Services at the School of Education, IUPUI.

A minimum of 133 total credit hours is required. Students may exceed this amount depending on courses selected, so students should see an art education advisor before registering for classes. All art education students must maintain a 2.5 grade point average.

The Master of Art Education Degree

The Master of Art Education Program (M.A.E.) strengthens and revitalizes student artistic and professional experience. The underlying philosophy of the program is a strong belief in the artist-teacher. Course work for this degree is divided equally between art content (studio/history/criticism/aesthetics) and professional methodology.

Students wanting to enter the graduate program at the Herron School of Art must apply to the Graduate School of IUPUI and submit an application and portfolio to the Herron School of Art. Students holding an undergraduate degree, but not certification from the Department of Public Instruction, must complete all requirements for Rules 46-47. To be accepted to the M.A.E. program, the student must have a teaching certificate in art, a 3.0 cumulative grade point average, and must pass the portfolio review.

Curriculum Requirements for the M.A.E. Degree

Certification Requirements, Rules 46-47 of the Indiana Department of Public Instruction

Academic Requirements—Distributive

Art

From the following groups:

Studio (from 400-500 level; non-art major courses may not be applied)

Art History

Art Education (Studio C312, C412)

Total

18 cr.

Note: All graduate students must consult with the appropriate faculty advisor to determine the distribution of credit.

Art Education (Professional)¹

Choose three courses from the following group:

EDUC Z500 Advanced Art Education (May be used to satisfy Art Education [Professional] or Educational Inquiry, but not both.)

EDUC Z510 Arts for Exceptional Children

EDUC Z511 Nonstudio Approaches to Art Instruction

EDUC Z512 Improving Studio Instruction in Art

EDUC Z513 Special Topics in Art Education

EDUC Z532 Advanced Methods and Materials in Art Education

EDUC Z590 Independent Study in Art Education

EDUC Z700 Practicum in Art Education

Total

9 cr.

Education (Professional)

Educational Inquiry

Choose one course from the following:

EDUC Y501 Statistical Methods Applied to Education

EDUC Y507 Testing in the Classroom

EDUC Z500 Advanced Art Education (May be used to satisfy Art Education [Professional] or Educational Inquiry, but not both.)

Psychology of Education

Choose one course from the following:

EDUC P510 Psychology in Teaching

EDUC P515 Child Development

EDUC P516 Adolescent Development

EDUC P525 Psychological Issues in Education

EDUC P540 Learning and Cognition in Education

History and Theory of Education

Choose one course from the following:

EDUC H504 History of American Education

EDUC H520 Education and Social Issues

EDUC H530 Philosophy of Education

EDUC H538 Critical Thinking and Education

Total

9 cr.

Total

36 cr.

The Master's in Art Education plus Certification B.A.E. is required of all graduate students not certified to teach K-12 in the Indiana Public Schools before the M.A.E. degree is awarded. Students accepted to the M.A.E. program on the basis of a portfolio of work and an undergraduate major in art with 50 credit hours, but without a certificate to teach K-12 in Indiana public schools, must complete Rules 46-47 for an all-grade visual art major before they can be granted the M.A.E. degree. The total number of professional education credit hours required is 35 to 41, including student teaching.

Requirements will vary based on the individual student's undergraduate program. While most professional education courses for certification are undergraduate courses, students can substitute 6 hours of graduate credits including P510 for P254, and H520 or H530, to replace H340. M.A.E. candidates must maintain a 3.0 grade point average.

Art History Program

The Bachelor of Arts major in art history gives the undergraduate student an opportunity to study the visual culture of humankind from prehistoric times to the art of today and to understand the significant role played by visual communication in world societies. Art historians develop skills in visual analysis, criticism, research, and writing that enrich life experiences and can lead to a variety of rewarding professional careers.

Unlike the studio B.E.A. degrees at Herron, the art history major is a liberal arts program leading to the B.A. degree. Art history majors take 36 credit hours of surveys and seminars in their major field covering at least three of the following areas: ancient, medieval, Renaissance and Baroque, American, world art, modern, and art theory. Majors must take at least 6 credit hours of studio art as well as a variety of core requirement courses in the humanities and sciences, including at least one foreign language. Specific requirements for the art history major are outlined later in this section.

An art history minor enables students majoring in other areas to expand their knowledge of art history and gain valuable career-building experience. Minor in art history will require 18 hours of art history credits from a variety of historical periods.

Art history can lead to a variety of careers, including the traditional professional paths of teaching and museum work as well as art conservation and restoration, historic preservation, architecture, art dealership, auctioneering and collecting, art criticism and journalism, advertising, filmmaking and photography, exhibition design and preparation, historical research and writing, interior and commercial design, librarianship, independent consulting, and publishing. Art history also enriches the life of the practicing artist. More information is available from the art history office in the Herron Main Building, or by calling the Art History Program at (317) 920-2460 or visiting our World Wide Web site at www.herron.iupui.edu/arhistory/.

¹All Professional Art Education courses are offered only in the summer sessions.

Academic Requirements for a B.A. in Art History

1. A minimum of 128 credit hours is required to complete the Bachelor of Arts in art history degree.
2. A minimum cumulative grade point average of 2.00 (C) is required for graduation.
3. Art history majors must fulfill the following general education requirements:
6 credit hours in English composition
3 credit hours in speech communication
10 credit hours in foreign language (8 in some languages)
6 credit hours in analytic skills
9 credit hours in natural science
6 credit hours in history
6 credit hours in arts and humanities
6 credit hours in social and behavioral sciences
15 credit hours in advanced courses
4. A minimum of 36 credit hours of art history courses is required. Neither H100 Art Appreciation nor H103 Introduction to Contemporary Art may be counted for the art history major or minor requirements. They may, however, be used as general electives. No course in art history in which a student receives a grade below C (2.0) may be used to fulfill the 36 credit hour requirement.
5. A minimum of 6 credit hours in studio art is required.
6. A minimum of 19 credit hours of electives is required. Art Appreciation H100 may count toward elective credit in the major only if taken prior to H101 and/or H102.
7. A minimum of 26 credit hours of senior-year courses must be completed at Herron/IUPUI.
8. A maximum of 8 courses may be taken Pass/Fail but no more than two Pass/Fail courses may be taken in any one academic year. Pass/Fail courses can be used only as electives or non-major 300- or 400-level requirements.
9. A maximum of 12 credit hours may be taken by correspondence through the Indiana University Office of Distributed Education. Authorization from the Art History Program faculty and the Student Services Office at Herron School of Art is required prior to registration.
10. Once a course has been applied toward one requirement, it cannot be used again to satisfy a second requirement except where explicitly stated otherwise. In addition, except in cases of variable-title courses, internships, and other special courses, no course can be counted more than once toward graduation.
11. Credits in the following courses will not be accepted toward the art history degree: English W001, G010, G011, G012, or G013; MATH 130, 132, or any mathematics course lower than M118.

Distribution Requirement Details

Communication Core 19 credits

The communication core, which students are to take as early in their college careers as possible, provides work in written and spoken English to prepare students for organizing and presenting their thoughts

effectively. Further, skills in foreign languages are necessary for a liberally and broadly educated person and are especially important to the professional art historian.

English Composition W131/W132 (6 credits). This requirement may be satisfied in one of the following ways:

1. by completing W131 and W132 or Honors W140 and W150 with a grade of C (2.00) or higher; or
2. by testing out of W131 through the IUPUI English Credit by Exam and completing W132 with a grade of C (2.00) or higher; or
3. for transfer students, by completing course work equivalent to W131 and W132 with a grade of C (2.00) or higher at another campus or institution.

Communication Studies R110 (3 credits). Students with previously acquired competency in public speaking may be eligible for special credit and exemption from this requirement.

Foreign Language (8-10 credits). First-year competency is required, and second-year competency is strongly recommended. This requirement may be satisfied in one of the following ways:

1. by completing first-year courses (10 credit hours, 8 in some languages) with passing grades;
2. by completing a second-year course with a grade of C (2.00) or higher; or
3. by attaining a satisfactory score on a placement test.

Students for whom English is not a first language may be exempted from this requirement, without credit, by completion of English W131 and W132 with the required grade of C or higher. *Note:* Special English-as-a-second-language sections of W131 have been designated for students whose first language is not English.

Native speakers of languages other than English are not permitted to receive credit for 100- and 200-level courses in their native language. Similarly, native speakers of English who have achieved elementary or intermediate proficiency in a foreign language by living or studying in a country where the language is spoken ordinarily will not receive credit for 100- and 200-level courses in that foreign language by taking first- or second-year courses.

In all cases, individual foreign language departments are responsible for determining a student's placement and for recommending a specific number of credit hours for prior work. Before registering for foreign language courses, native speakers of languages other than English should confer with the academic advisor in the relevant department.

Basic Courses 33 credits outside the major

Analytic Skills (6 credits). These courses provide the student with insight into processes of logical reasoning.

Mathematics M118 or above (3 credits)
Logic (Philosophy P262 or P265) or Mathematics or Computer Science or Computer Technology or Statistics (3 credits)

Natural Sciences (9 credits). This area allows for a choice of courses treating the "natural" phenomena of the world according to models of scientific

thought. The 9 credits are to be selected from at least two of the following subjects:

Astronomy
Biology (including botany, zoology, microbiology, anatomy, and physiology)
Chemistry
Geology
Physics
Psychology (B105)
Geography (up to 3 credits may count: G107, G303, or G307 may be counted toward this requirement)

History (6 credits). Courses exploring patterns and processes of history are essential for making decisions in the present, giving the background necessary for students to more capably assume societal responsibility.

H108/H109 Perspectives on the World to 1800 and since 1800

H113/H114 History of Western Civilization I and II

This requirement is fulfilled by two semesters of the following courses: H108, H109, H113, H114, but not H109 and H114.

Transfer students who have taken history courses other than those listed above should consult with the art history faculty about transfer credit.

Arts and Humanities (6 credits). Courses lead to viewing the world from more than one perspective and learning something about its social, cultural, intellectual and spiritual dimensions. The 6 credits must be divided between two of the following four areas:

Fine Arts: Music M174 or Communication Studies T130
English Literature L105 or L115
Philosophy P110 or P120
Religious Studies R133

Transfer credits in the arts and humanities that are not the content equivalent to the courses listed above may be used to fulfill this requirement as follows:

1. Subject to review and approval of the art history faculty, introductory courses in any of the arts and humanities may count toward this requirement.
2. With approval of the art history faculty, where it seems appropriate to the breadth of the course, nonsurvey courses may count toward this requirement.
3. Other arts and humanities courses will be counted toward this requirement on a 2-for-1 basis (6 credit hours satisfying 3 credit hours of this requirement).
4. The following *will not satisfy* this requirement: creative writing, drawing, performance, or studio courses.

Social Sciences (6 credits). An examination of the complexities of human behavior, society, and human interaction, this area uses procedures and information developed in social and behavioral studies. The 6 credits must be divided between two of the following areas:

Anthropology A103 or A104
Economics E201 or E202
Geography G110
Political Science Y101 or Y103

Psychology B104
Sociology R100

Transfer credits in the social sciences that are not equivalent to the courses listed above may be used to fulfill this requirement as follows:

1. With the approval of the division coordinator, introductory survey courses in any of the social sciences shall count toward this requirement.
2. With approval of the division coordinator, where it seems appropriate to the breadth of the course, nonsurvey courses may count toward this requirement.
3. Other social science courses will be counted toward this requirement on a 2-for-1 basis (6 credit hours satisfying 3 credit hours of this requirement).

Advanced Courses (300-400 level) 15 credits outside art history

In addition to cultivating expertise in art history, the degree student should conduct in-depth study of other appropriate subject areas.

Offerings on the 300- and 400-levels of at least four departments or programs of the School of Liberal Arts, the School of Science, the School of Music, or the Herron School of Art may count toward satisfying this requirement. Advanced courses may include those that involve significant cross-disciplinary input, e.g., appropriately designed honors courses or specially designed liberal arts topics courses. Herron advanced studio courses may be counted toward satisfying the advanced courses requirement. Students wanting to take studio classes must submit examples of their artwork to the Office of the Associate Dean for approval.

In order to register for any 300- or 400-level course, the student must satisfy the prerequisite requirements.

The 300- and 400-level courses in Afro-American studies, women's studies, American studies, and the IUPUI Honors Program can also be counted.

The Herron School of Art programs from which advanced courses may be selected include the following:

Ceramics
Drawing
Furniture Design
Painting
Photography
Printmaking
Sculpture
Visual Communication

School of Liberal Arts departments and/or programs from which advanced courses may be selected include the following:

Afro-American Studies
American Studies
Anthropology
Classical Studies
Communication Studies
Economics
English

Film Studies
Foreign Language and Cultures
Folklore
Geography
History
International Studies
Museum Studies
Music
Philosophy
Political Science
Religious Studies
Sociology
Women's Studies

Major Requirements (100-400 level) 36 credits
Includes both H101-H102 History of Art I-II, no fewer than 12 credits at the 300 level, and no fewer than 12 credits at the 400 level. The 300- and 400-level courses should be distributed among at least three different areas of art history selected from the following: ancient, medieval, Renaissance and Baroque, American modern, world art, or art theory. At least 3 credit hours must be taken in art history after 1900.

At least 15 of the 36 credits must be completed in residence at IUPUI; of these 15 credits, two courses at the 300 level and two courses at the 400 level must normally be completed to fulfill this requirement.

Any course in which the student receives a grade below C may not be used to fulfill this requirement. However, courses in which D is received may be counted toward the total 128 credits required.

Studio Art 6 credits

Electives 19 credits
Elective subjects allow students to adjust their curricula to satisfy additional personal needs and interests. These subjects may be used to add an even greater diversity to a liberal arts program or provide opportunity for in-depth reinforcement of required studies. Art history and studio art courses not used to satisfy previously listed requirements may be counted as electives.

Suggested Plan of Study for the B.A. in Art History

Freshman

<i>Fall</i>	credits
H101 History of Art I <i>or</i>	
H102 History of Art II	3
W131 Elementary Composition I	3
COMM R110 Speech Communication	3
Arts and Humanities Elective	3
Natural Science Elective	3
Total	15 cr.

<i>Spring</i>	credits
H101 History of Art I <i>or</i>	
H102 History of Art II	3
W132 Elementary Composition II	3
Arts and Humanities Elective	3
Social Science Elective	3
Analytic Skills	3
Total	15 cr.

Sophomore

<i>Fall</i>		credits
300-level	Art History	3
<i>Choose one of the following sequences</i>		
H113-H114	History of Western Civilization I-II	
	<i>or</i>	
H108-H109	Perspectives on the World	3
	Foreign Language Elective	5
	Natural Science Elective	3
Total		14 cr.

<i>Spring</i>		credits
300-level	Art History	3
<i>Complete sequence from fall semester</i>		
H113-H114	History of Western Civilization I-II	
	<i>or</i>	
H108-H109	Perspectives on the World	3
	Foreign Language Elective	5
	Social Science Elective	3
	Elective	3
Total		17 cr.

Junior

<i>Fall</i>		credits
300-level	Art History	3
400-level	Art History	3
300-level	Herron Studio Elective	3
	Natural Science Elective	3
	Electives	4
Total		16 cr.

<i>Spring</i>		credits
300-level	Art History	3
400-level	Art History	3
300-level	Herron Studio Elective	3
	Analytic Skills	3
	Elective	3
Total		15 cr.

Senior

<i>Fall</i>		credits
400-level	Art History	6
	Advanced Courses	6
	Electives	6
Total		18 cr.

<i>Spring</i>		credits
400-level	Art History	6
	Advanced Courses	3
	Elective	3
Total		12 cr.

Summary of Credit Required for the B.A. in Art History

Communications	19
Analytic Skills	6
Natural Sciences	9
Arts and Humanities	6
Social Science	6
History	6
Advanced Courses (6 cr. in studio art)	21
Art History (major)	36
Electives	19
Total	128 cr.

Minor in Art History

Requirements 15 credits in art history as follows:

H101-H102 Two semester introductory survey 6 cr.
Upper-level courses (200 optional, 300-and 400-level)

One 400-level course recommended.
The 9 credits must include courses in at least two historical periods or subject categories (ancient, medieval, Renaissance/Baroque, American, 19th/20th-century, and art theory) 9 cr.

Only courses completed with a grade of C (2.0) or better will count toward the minor.

Consult the bulletin and schedule of classes for regular and cross-listed courses. Art history courses not eligible to be counted toward the minor (or major) include H100 Art Appreciation and H103 Contemporary Art.

Procedure

Students interested in minoring in art history must make an appointment with the art history faculty advisor for the minor to go over the requirements and plan their programs of study. The Art History office is located in HM 209. Call (317) 920-2460 for an appointment.

Community Resource Faculty

The art history program utilizes the experience and expertise of numerous professionals in the Indianapolis community. Specialists teaching art history in the areas of their professional expertise are:

Paul Diebold, Lecturer in Art History; M.A., Ball State University; B.A., Herron School of Art
Charles Haines, Lecturer in Art History; M.A., M.F.A., B.A., Indiana University
J. Scott Keller, Lecturer in Art History; B.S., Indiana University
William L. Selm, Lecturer in Art History; M.A., Boston University; B.A., Indiana State University
William E. Taylor, Lecturer in Afro-American Studies, Lecturer in Art History; M.S., B.S., Indiana University

Options for Nonmajors

Elective Courses

While Herron's primary emphasis is on its degree programs, the school also provides a broad range of instruction for adult nondegree students and for university students who desire to learn about various phases of art on an elective basis. Generally, the courses have either no prerequisite requirements or modest prerequisite requirements.

Enrollment in any of these elective courses does not in itself constitute admission to any of the Herron School of Art degree programs.

For complete information, including detailed course listings and admissions procedures, please contact the Herron Student Services Office at (317) 920-2416.

Precollege Classes

Saturday Art Classes for High School and Junior High School Students

The Herron Saturday classes provide a wide range of learning experiences for the high school or junior high school student who is especially interested in the visual arts. Sixth-grade students will be accepted if the grade is part of a middle school program. Instruction is provided by capable junior and senior Herron students working under faculty supervision. The combination of quality instruction and an art school environment encourages exceptional development of creative skills.

Partial scholarships are available through local high school teachers. For more information call (317) 920-2451.

Summer Honors Art Workshop

The Herron Summer Honors Art Workshop is an intense program of instruction for high school students and recent graduates who are interested in summer art programs. Instruction in drawing, design, theory, three-dimensional design, and printing is provided by a Herron faculty member, and assignments are carefully selected equivalents of those given to Herron's first-year students. The moderate class size leads to quality instruction.

During the workshop, visiting artists will talk about their work and introduce students to various career opportunities in art. A series of planned field trips provides meaningful exposure to many aspects of the art and opportunities to do artwork in the field.

To qualify for the Summer Honors Art Workshop, a student must have completed the sophomore year of high school. For more information call (317) 920-2455.

Continuing Education

Noncredit adult education courses at IUPUI are open to adults regardless of age or educational background. These courses are intended for persons who, for personal or professional enrichment purposes, want to expand their knowledge. Formal admission to the university is not required for enrollment in the continuing education programs.

For complete information, please call the IUPUI Division of Continuing Studies, Noncredit Programs, (317) 274-4501.

Courses

Actual course content may occasionally deviate somewhat from the description printed in this bulletin. Changes are sometimes made during the period covered by a bulletin with the intention of improving courses or updating content.

The abbreviation "P" refers to the course prerequisite or prerequisites; the abbreviation "C" refers to the course corequisite or corequisites.

For registration purposes, the department abbreviation for Herron is HER.

Art Courses for Nonmajors

E101-E102 Beginning Drawing I and II (3-3 cr.) Introduction to drawing, exploring a wide

range of techniques. Study from nature and still-life objects and sketching from the model.

E105-E106 Beginning Painting I and II (3-3 cr.) Introduction to the techniques of painting. Aspects of pictorial composition; wide range of media. Painting from still life and live model. Will not count toward a Herron B.F.A. degree.

E201 Photography I for Non-Art Majors (3 cr.) Introduction to the basics of black-and-white fine art photography for non-art majors only. Students provide their own fully manual 35mm camera. Will not count toward a Herron B.F.A. degree.

Art Degree Foundation Program

C111 Three-dimensional Design (3 cr.)

P: Admission to the Herron School of Art. Introduction to the three-dimensional creative process through the expressive use and exploration of a wide range of materials and techniques.

C121 Design Theory (3 cr.) P: Admission to the Herron School of Art. Introduction to basic design and color theory through the manipulation of imagery in two-dimensional media. Equal emphasis on thought processes and manual skills.

D101-D102 Life and Object Drawing I-II (3-3 cr.) P: Admission to Herron School of Art. Introduction to the basic skills of drawing. Working from natural and manufactured objects and the human figure. Development of expressive draftsmanship with an emphasis on proportion and structure.

F101-F102 Foundation Studio I-II (4-4 cr.) P: Admission to Herron School of Art. Introduction to art and design, fundamental and orientation session to Herron and the university. Students survey many art concepts and processes by working with two different faculty members over the course of the semester. Students are periodically introduced to Herron and university services such as e-mail, campus libraries, the Herron Gallery, and other opportunities.

Art Degree Senior Capstones and Research Courses

Senior Capstone

J400 Practical Concerns for Studio Artists (3 cr.) Course devoted to practical aspects of managing a studio and maintaining an artistic career. Subjects including artwork photography, gallery representation, legal and tax issues, and health hazards will be covered. This course is required for all fine arts students.

J410 A Critical Approach to Art: Seminar (3 cr.) A capstone seminar-style class in which students define and refine their personal artistic philosophies through analytic comparisons to various historical and contemporary ideas from the realms of philosophy, art history, critical theory, etc. In short weekly papers and open discussions, student address large-scale questions whose answers should help them develop the confidence to chart their conceptual and professional development after graduation.

Visual Research

R201-R202, R311-R312, R411-R412, R511-R512 Visual Research (Variable Title) (3-3 cr.) Specially arranged instruction within specialized subject area. May take form of field experience, in which case there will be close collaboration between specialized faculty member and the work supervisor, who will jointly evaluate performance. May be taken with approval of dean, who will confer with appropriate faculty.

Art Education

Graduate

EDUC Z500 Advanced Art Education (3 cr.) Survey of contemporary issues in art education. Examination of research history and philosophy of art education to discover relationships between developments in education as a whole and art education. Emphasis on issues that directly affect the art teacher within the educational system.

EDUC Z510 Art for Teachers of Exceptional Children (3 cr.) A course concerned with planning and presentation of art lessons and programs for children with a variety of special needs. The program involves presentations by guest professionals and field experiences. Emphasis is on public school applications. For nonpublic school application, see M431.

EDUC Z511 Nonstudio Approaches to Art Instruction (3 cr.) Exploration of critical approaches to newer media, including film, video, and television, directed toward an art context. Emphasis on the development of critical skills and approaches to new media in the classroom.

EDUC Z512 Improving Studio Instruction in Art (3 cr.) Designed to examine major directions in art and the points of view of professional artists in order to develop new approaches to elementary and secondary art instruction.

EDUC Z513 Special Topics in Art Education (1-3 cr.) A variable topic course designed to cover current issues in art curriculum and assessment. Designed for the K-12 art specialist.

EDUC Z532 Advanced Methods and Materials in Art Education (3 cr.) P: EDUC M453 or equivalent. Designed to provide the advanced art specialist with an opportunity to continue exploration of materials and the ability to relate the knowledge to specific professional situations.

EDUC Z533 Arts and Crafts for Elementary Teachers (3 cr.) Not open to art education majors. The course is designed to familiarize elementary teachers with concepts and materials in the visual arts. A vocabulary familiar to classroom teachers is used. The focus of the class is not on the mechanics of teaching art, but rather on developing positive attitudes toward and understanding of the visual arts.

EDUC Z590 Directed Independent Study in Art Education (Variable Credit) (1-6 cr.) P: Permission of instructor. Individual study. Credit to be arranged.

Professional

EDUC M332 Art Experiences for Elementary Teachers, Part I (2 cr.) Not open to art education majors. The selection, organization, guidance, and evaluation of two- and three-dimensional art activities in the elementary grades. Laboratory experience with materials and methods.

EDUC M333 Art Experiences for the Elementary Teacher, Part II (2 cr.) P: HER H100. Not open to art education majors. Development of skills in viewing and discussing art. Guidance in selecting and organizing visuals and media for art instruction in the elementary classroom.

EDUC M371 Foundations of Art Education (4 cr.) Historical, sociological, and philosophical foundations of art education; curriculum development; individualized and interdisciplinary learning; introduction to K-12 audiences and school organization; and general processes and practices of teaching art, including the creative problem-solving process and interpreting, understanding, and judging art. School and museum field experiences included.

EDUC M472/M400 Teaching Art in Elementary Schools and Laboratory/Field Experience for Seniors (3 cr.) P: M371, PPST. Develops understanding and appreciation of teaching, with emphasis on teaching in the elementary schools. Includes curriculum and lesson planning, organization of materials and ideas, and techniques of classroom management. To be taken concurrently with EDUC M400, which encompasses off-campus experiences in the elementary schools.

EDUC M473/M401 Teaching Art in Secondary Schools and Laboratory/Field Experience for Seniors (3 cr.) P: EDUC M371, C311. Develops understanding and appreciation of teaching, with emphasis on teaching art in the secondary schools. Includes advanced studies of curriculum and lesson planning, classroom organization, and management techniques. Must be taken concurrently with EDUC M401, which encompasses off-campus experiences in the secondary schools.

EDUC M482 Student Teaching: All Grades (1-16 cr.) P: EDUC P254, H340, W200, M300, K205, M464, required methods courses (C311, M371, M472, and M473), and senior standing. Each student assumes, under the direction of the supervising teacher, responsibility for teaching his or her subject matter area in an Indiana public school. Additional course fee. Only S-F grades given.

Studio

C311 Art Education Studio Survey (3 cr.) A course intended to insure broad knowledge of the type and scope of media likely to be encountered in elementary and secondary art programs with consideration of inclusion students. Required for all art education majors.

C312 Art Education Studio (3 cr.) Jewelry or papermaking. Studio experience designed to supplement the major offerings at Herron. Provides an opportunity to explore jewelry or papermaking as art forms. Various media and techniques not normally

covered in major studio offerings but useful in a teaching situation.

C412 Advanced Art Education Studio: (Variable Content) (2 cr.) P: C312. Jewelry or papermaking. This course allows students the option of acquiring deeper knowledge in areas not normally available through Herron studio programs.

C513 Advanced Art Education Survey (3 cr.) A studio course designed primarily to meet needs of in-service teachers to keep current with developments in materials and techniques available for artistic expression.

Art History

H100 Art Appreciation (3 cr.) An understanding and appreciation of outstanding works of art through analysis of artistic purposes and techniques, and knowledge of historical style and subject matter. Not counted as credit toward the B.F.A. or B.A.E. degree, nor toward the major or minor requirements in art history.

H101-102 History of Art I-II (3-3 cr.) Visual analysis of selected works from the history of Western art. First semester defines historical terms, processes, and principles of architecture, painting, and sculpture, and covers the history of art from Prehistoric through Late Gothic. Second semester examines problems of style and subject matter from Early Renaissance to the twentieth century. Required of all Herron degree students.

H103 Introduction to Contemporary Art (3 cr.) This course introduces the vocabulary of visual arts in the twentieth century. Major movements are briefly introduced with characteristic works. Painting, sculpture, photography, printmaking, computer graphics, video, and environmental and performance art in the past three decades are emphasized. Required of all Foundation Program students. Not counted toward the major or minor requirements in art history. May be counted under electives.

H203 Topics in Art History (3 cr.) Study of selected topics or issues in the history of the visual arts. Topics change in order to coordinate with current exhibitions, special events, or faculty expertise. Refer to the current *Schedule of Classes* for specific course descriptions.

H300 Black Visual Artists (3 cr.) A survey of the artistic traditions of Africans in the New World, from the period of slavery in North and South America through contemporary and expatriate African American artists. Equivalent to Afro-American Studies A352; students may not receive credit for both courses.

H301 Arts of Africa, Oceania, and the Americas (3 cr.) This course introduces the visual arts of sub-Saharan Africa, Oceania, and pre-Columbian and historic Native America. A limited number of cultures from each of these four world regions is selected for analysis.

H302 Beginnings of Twentieth-Century Art: 1886-1914 (3 cr.) From the last impressionist group show of 1886 until the end of World War I, the foundation was laid for new visual expressions by both painters and sculptors. Course topics include

post-impressionism, symbolism, art nouveau, fauvism, expressionism, orphism, cubism, and futurism.

H303 Contemporary African American Art and Artists: 1920-80 (1 cr.) This distance education telecourse targets the African American visual artist, but it also includes the political and social non-art-related elements that contributed to the period's activities. The course presents an introduction to, and the foundations of, the African American visual artist. It begins with the pre- and post-Harlem Renaissance of the 1920s and journeys to modern African American art and its relation to post-World War II contemporary European and Euro-American art.

H310 Classical Archaeology (3 cr.) The material remains of the classical lands from prehistoric through Roman times and a variety of approaches by which they are understood. Archaeological theory and methods are illustrated through select sites, monuments, works of art, and other remains of cultural, artistic, and historical significance. (Equivalent to Classical Studies A301; students may receive credit for only one of these courses.)

H323 History of Printmaking I (3 cr.) This course explores the artistic evolution and cultural significance of printmaking from the invention of printing through the eighteenth century. Emphasis is given to the development of the woodcut, engraving, and etching processes, and to the works of major printmakers such as Durer, Rembrandt, and Hogarth.

H324 History of Printmaking II (3 cr.) This course covers the history of printmaking from 1800 to the present with emphasis on the development of new techniques such as lithography and silkscreen; the relationship of printmaking processes to other media in the work of artists such as Cassatt, Picasso, and Warhol; and the role of printmaking in the cultural context of visual communication.

H326 Romanesque and Gothic Art (3 cr.) Romanesque and Gothic art covers the period from about 1000 until 1550, from the artist-craftsman tradition of monasteries and cathedrals to the end of the Age of Faith in Europe. Painting, sculpture, and stained glass will be considered in their social and architectural context.

H333 Art of the Renaissance (3 cr.) Introduction to the architecture, painting, sculpture, and graphic media of Renaissance Europe. Emphasis is placed on the political and social climate prevailing from 1400 to 1600, and its effect on the arts of Italy, Flanders, Spain, Holland, France, Germany, and England.

H334 Baroque Art (3 cr.) Exploration of the characteristics of Baroque art and its development in the seventeenth century. Special emphasis on selected Baroque artists such as Bernini, Rubens, Rembrandt, Velazquez, and Poussin, and on their personalities, styles, and positions in seventeenth-century society.

H341 Nineteenth-Century Art (3 cr.) Focus is on the major movements and artists in European painting and sculpture from the French Revolution to post-impressionism. Topics include neoclassicism, romanticism, realism, and impressionism. Artists such as David, Ingres, Goya, Delacroix, Courbet, Manet, Monet, and Degas will be covered.

H342 From Dada to Abstract Expressionism: 1915-1950 (3 cr.) International movements in painting and sculpture from World War I until the emergence of the New York School after World War II including Dada activities in Europe and New York, the Bauhaus, European surrealism, and American art.

H343 Nineteenth-Century Architecture and City Planning (3 cr.) An analysis of significant architecture and city planning in Europe and North America from 1790 to 1886. Emphasis on aesthetic, spatial, and theoretical concepts of key architects and their solutions, technological advances, and social implications.

H344 Modern Architecture (3 cr.) Emphasis is given to European and American modern architecture since 1892 and to contemporary architecture in Indiana since 1942. Selected modern movements such as art nouveau, Chicago school, prairie, the Bauhaus, international style, and post-modernism will be studied. Special attention is directed to the American architects Henry Hobson Richardson, Louis Henri Sullivan, and Frank Lloyd Wright, and to their contemporaries in Europe: Walter Gropius, Le Corbusier, and Ludwig Mies van der Rohe.

H345 American Art to 1913 (3 cr.) A multicultural and interdisciplinary stylistic approach will be used to study selected examples of American architecture, painting, and sculpture from the seventeenth century to the Armory Show of 1913. Some consideration will be given to Indiana architecture and painting.

H347 Art from 1950 to the Present (3 cr.) Deals with European and American painting and sculpture from abstract expressionism to the present. Topics include post-painterly abstraction, pop art, minimal art, conceptual art, body and performance art, photorealism, site and architectural sculpture, and installations.

H348 History of Photography (3 cr.) This course is a critical examination and in-depth study of photography from 1839 until the present. The general approach is from an artistic and cultural viewpoint, stressing the development of photography as a medium of personal artistic expression as well as its relationship to broader artistic ideas and sociocultural issues.

H349 History of Twentieth-Century Crafts (3 cr.) A survey of twentieth-century crafts from the Bauhaus to the present. Uses of clay, fiber, glass, wood, and metal will be covered and the function of crafts in society. Emphasis is mainly historical, but techniques will be discussed.

H351-H352 African Art I and II (3-3 cr.) First semester: Art of sub-Saharan Africa with particular attention given to the artistic traditions of the western Sudan and Atlantic coast to the Niger River. Second semester: Art from the Niger-Benue through the Cameroons and Ogowe River valley to the Congo River basin and Zaire. This course will examine the historical methods, stylistic classifications, and ethnographic contexts in which African art is created and studied.

H355 Arts of the American Indian (3 cr.) Survey of Native American Indian arts from pre-Columbian

cultures to the 19th century. Particular attention is given to the arts of Meso-America, Eastern United States, American Southwest Plains, and Northwest Coast.

H361-H362 Asian Art I and II (3-3 cr.) Major art forms from the Islamic cultures of western and central Asia, the Hindu cultures of India and southeast Asia, and the Buddhist, Tao, and Shinto cultures of east Asia are discussed.

H400 Topics and Methods in Art History (1-3 cr.) Critical examination of important topics and methods from the history of art, using the seminar approach. Content may vary according to the specialty of the instructor. May be repeated up to three times for a maximum of 9 credit hours.

H402 The Roots of Modernism: 1905-1915 (3 cr.) This seminar deals with the decade in the early twentieth century that saw the rise of drastically new attitudes and styles in painting and sculpture. From the first group exhibit of the fauves in 1905 until the arrival of Marcel Duchamp in New York in 1915, the foundations for future developments in art were laid for the twentieth century.

H403 Art Museum Studies (3 cr.) Designed to provide insight into the various functions and activities of the art museum, with emphasis on professional opportunities. Administration, conservation, education, and exhibition are some of the areas covered. Includes an introduction to the history, present-day operation, and future of the art museum in America.

H404 Art of the Past Two Decades (3 cr.) A seminar focusing on directed research into the art, critical writing, and conceptual attributes of current art. Topics include postmodernism, appropriation, feminism, multiculturalism, deconstruction, and semiotics.

H407 Historical Painting Techniques (3 cr.) Introduction to materials and techniques used in fresco, encaustic, egg tempera, and resin-oil glaze painting. Each unit is introduced by a slide lecture illustrating major historical examples of the painting medium to be explored. Remaining studio time is devoted to the actual painting processes.

H413 Art and Archaeology of Greece (3 cr.) Art and archaeology of Greece from about 1000 B.C. through the Hellenistic period. Special attention given to the development of Greek architecture, sculpture, and vase painting. Equivalent to Classical Studies C413; students may receive credit for only one of these courses.

H414 Art and Archaeology of Rome (3 cr.) Development of Roman architecture, sculpture, and painting from the beginning through the fourth century A.D. Consideration given to the major archaeological sites. Continuation of H413, but H413 is not a prerequisite. Equivalent to Classical Studies C414; students may receive credit for only one of these courses.

H418 Myth and Reality in Greek Art (3 cr.) An introduction to Greek iconography (the study of images) that explores contemporary approaches to narration and representation. The course examines

the illustration of myth, history, and everyday life in relation to ancient society. Equivalent to Classical Studies A418; students may receive credit for only one of these courses.

H495 Problems in Art History (1-3 cr.) Directed study in art history for independent research and/or special external programs. May be repeated three times for a maximum of 9 credit hours.

H497 Educational Opportunities Abroad (1-6 cr.) A variable-credit course designed to allow credit for exceptional opportunities in art history study and travel outside the United States.

Book Arts

A204 The Visual Book (3 cr.) Exploration of the communicative possibilities of the book format through lecture, studio projects, and field trips. Introduction to letterpress, binding, and typographic concerns.

A291 Bookbinding (3 cr.) A beginning course in bookbinding dealing with traditional bookbinding and box-building techniques. Students are instructed on use of tools and materials. Projects are designed to encourage exploration and experimentation of book structure.

Ceramics

C204 Beginning Ceramics, Hand Building (3 cr.) P: Foundation Program. Beginning studio introduction to handbuilding, glazing, and firing of clay as an expressive studio medium applicable to contemporary and sculptural concepts.

C206 Beginning Ceramics, Wheel Throwing (3 cr.) P: Foundation Program. Focus on wheel throwing as an expressive tool within an overall ceramic experience. Clay vessels will be utilized to develop an understanding of glazing and firing techniques. Traditional forms will be used to expand sensitivity to material, history, and wheel throwing techniques.

C208 Intermediate Wheel Throwing (3 cr.) P: C206. Designed for non-art majors who wish to pursue wheel throwing. Emphasis is on developing skill through an exploration of more complex forms and investigative advanced embellishment and firing techniques.

C304-C305 Ceramics III-IV (3-3 cr.) P: C204-C206 Advanced workshop. Focus on students' conceptual development and self-motivated projects. Heavy concentration on material testing and exploration of firing techniques. Emphasis will be placed on the merging of technique and concept to ready students for entry into a career as a ceramic artist or educator.

C307 Clay and Glaze Materials (3 cr.) P: C204, C206, and C304. This course is an investigation into the chemistry that makes up clays and glazes. Students develop an understanding of these materials and their interactions by systematically testing a variety of glazes and clay bodies that are used by contemporary ceramic studio artists. Topics include low and high fire glazes, clay bodies, specialty glazes, and clays.

C308 Intermediate Wheel Throwing (3 cr.) P: C204 and C206. Designed for art majors who wish to pursue wheel throwing as a main focus of expression. Assignments will focus on developing wheel throwing skills through an investigation of contemporary vessel makers as well as development of a personal style in vessel work.

C350 Ceramic Workshop (3 cr.) P: C204 and C206. This course is designed to offer specific focused topics of interest in the ceramic arts. Such topics may include kiln building, slip casting, mold making, making and using decalomania, raku firing to name a few.

C400 Individual Research in Ceramics (1-6 cr.) P: C305. This course is designed to investigate specific advanced ceramic techniques as used by contemporary artists. Areas of study will be offered on an alternate basis. Subject matter to be covered will include kiln construction and glaze calculations.

C405 Individual Research in Ceramics (1-6 cr.) P: C305 and C307. Study devoted to the student's independent research in ceramics. Emphasis placed on advanced techniques and the development of concepts and philosophies pertinent to the student's direction.

Drawing

D201-D202 Drawing III-IV (3-3 cr.) P: Foundation Program. Investigation of nature and the human figure through drawing. Emphasis on structure, line, gesture, and movement.

D230 Figure Drawing (3 cr.) Students draw in a variety of media directly from the live model.

D301-D302 Drawing V-VI (3-3 cr.) P: D201-D202. Investigation of traditional and nontraditional elements of space in drawing. Emphasis placed on conceptual development and on drawing as an exploratory process and a means of producing finished works of art.

D401-D402 Drawing VII-VIII (3-3 cr.) P: D301-D302. Concerned solely with conceptual and technical capabilities in drawing necessary to satisfy the student's individual expressive needs. A primary aim of the course is to refine and extend analytical and verbal skills by means of participation in regularly scheduled open class critiques.

Furniture Design

Q241-Q242 Beginning Furniture Design I-II (3-3 cr.) P: Foundation Program or permission of instructor. Beginning Furniture Design concentrates on the concept of art furniture through the design and building of functional objects. Furniture design focuses on both historical reference and contemporary theory. Works created in the courses range from utilitarian to non-utilitarian furniture forms. Students are introduced to wood as a material, its preparation, and furniture construction, including basic joinery, forming, shaping, and finishing techniques. Students learn to start from a working drawing, build a model, and construct a finished piece. Beginning projects generally focus on table and bench forms.

Q341-Q342 Intermediate Furniture Design III-IV (3-3 cr.) P: Q241 and Q242. Intermediate Furniture Design concentrates on furniture as an art form as well as applications for everyday use. Furniture is defined as a medium in how its formal concerns address conceptual motives. Students are required to undertake an in-depth investigation of furniture, its historical roots as well as contemporary individual artist-makers. Students learn advanced joinery and carcass construction with door and drawer assemblies. Alternative materials and experimentation are encouraged.

Q441-Q442 Advanced Furniture Design V-VI (3-3 cr.) P: Q341 and Q342. Advanced Furniture Design offers the student an opportunity to define himself/herself as an artist in the field. Individual design aesthetic is emphasized. Complex furniture forms and advanced techniques are applied to each student's expertise.

Illustration

A311-A312 Illustration I-II (3 cr.) P: D211 or D201. Students receive a broad exposure to basic techniques of pictorial communication common to all phases of illustration.

A411-A412 Advanced Illustration (3 cr.) P: A312. Students are exposed to contemporary professional illustration. Students may participate in local and national competitions.

A414 Children's Book Illustration (3 cr.) Working with a preexisting children's text, students will develop a layout and mock-up or "dummy" of a children's picture book. Each student will then produce three finished illustrations for interior pages and/or the cover. Issues of page composition, sequential imaging, visual flow, and use of techniques will be covered.

A415 Independent Study in Illustration (3 cr.) P: A311 and A312. Students will develop individualized projects that will explore a specific aspect of illustration or illustrations that are theoretically linked throughout the semester. All students will be responsible for submitting a written proposal which will outline the content goals and timelines for their projects.

Painting

P201-P202 Painting I and II (3-3 cr.) P: Foundation Program. Investigation of the figure and landscape in painting. Emphasis on composition, content, and the development of a working knowledge of painting processes.

P210 Portrait Painting (3 cr.) Includes the study of features and basic construction of the head. Exploration of various media. Emphasis on rendering flesh tones, form, and colors with respect to the model.

P220 Watercolor Painting (3 cr.) Investigation of watercolor processes and techniques. Emphasis on individual creative objectives. Very intense study that will require exploration of watercolor to its fullest potential.

P222 Advanced Watercolor Painting (3 cr.) P: P220 This is a continuation of P220 watercolor. Students will work independently and be responsible for further investigation of concepts and ideas.

P301-P302 Painting III and IV (3-3 cr.) P: P201-P202, D201-D202. Exploration of traditional and contemporary concepts in painting with emphasis on relationships between form and content.

P303-P304 Concepts in Figuration I and II (3-3 cr.) This class will explore the discipline of figure and figurative paint in both traditional and conceptual approaches. Emphasis will be placed on sound painting techniques, composition, drawing, color, and concept.

P401-P402 Painting V and VI (3 or 6 cr.—3 or 6 cr.) P: P301-P302. Emphasis on personal solutions to form and content in painting. Classroom format features scheduled criticisms and seminars. Special counseling in areas of graduate study, fellowships, assistantships, grants, exhibitions, and professional potential following graduation.

P403-P404 Individual Research in Painting I and II (3-3 cr.) Offered in conjunction with P401-P402 only. Research devoted to the student's own projects in painting.

Photography

K201-K202 Photography I and II (3-3 cr.) P: Foundation Program. Introduction to black-and-white photography with an emphasis on the development of creative, personal, and photographic vision. The student must have a camera (standard 35mm or larger format) with an adjustable shutter and diaphragm. Film, paper, and film developer are supplied by the student.

K211 Introduction to Electronic Media (3 cr.) This course serves as an introduction to electronic photo-based media, including digital imaging and video. Students are introduced to both the technical and conceptual aspects of these media, specifically in relation to contemporary photography. This course will cover digital imaging technique through Adobe Photoshop as well as discussions about digital artists, critical thinking, principles of the photographic language and aesthetics relating to, and impact on personal creativity and expression. No prior knowledge of the computer or video is expected.

K300 Advanced Digital Imaging (3 cr.) P: K211 or permission of instructor. The course will cover time-based digital media techniques as well as discussions about video artists and digital artists, critical thinking, language and aesthetics in relation to, and impact on personal creativity and expression. This investigation will be accomplished through a combination of producing work; using Adobe Photoshop, Illustrator, After Effects, Premiere, and Macromedia Director; discussing the work of other photographers who work with digital imaging; historical lectures. Prior knowledge of computer basics and Adobe Photoshop required.

K301-K302 Photography III and IV (3-3 cr.) P: K201-K202. Exploration of photography as an expressive visual medium and the relationship of photography to culture. Advanced controls over negative production and printing techniques are taught. Students learn to speak critically of their own work, as well as the work of their peers, and the work of other artists. Alternative methods of

presentation, beyond the window mat, are introduced.

K303 Color Photography (3 cr.) P: K201-K202 or permission of the instructor. Students are introduced to a theoretical basis for color theory and the psychology of color. On a technical level, color balancing and regional color correction are stressed. In individual color darkrooms, students produce their own color-coupler prints, as large as 16 x 20 inches, from our on-site Kreonite processor. As in the department's other photo classes, there is an emphasis on developing good exposure and printing techniques. Students are encouraged to develop material conceptually, to understand how work is produced, and to speak about it.

K304 Advanced Color Photography (3 cr.) P: K303. Advanced color photography builds on the skills obtained in K303. Using knowledge gained in color balancing and regional color corrections. Students experiment with advanced printing techniques using materials such as Polaroid, transparency film, as well as some of the traditional alternative processes. Students further their study of significant historic and contemporary photographers and develop an understanding of the relationship of their work to that which has preceded theirs.

K311 Individual Research in Photography (3 cr.) Junior-level course that will provide special arranged instruction within photography. May take form of a field experience, in which case there will be close collaboration between specialized faculty member and work supervisor, who will jointly evaluate performance.

K401-K402 Advanced Photography (6-6 cr.) P: K301-K302, K303, photographic portfolio, and permission of the instructor. An advanced course taught as a seminar for graduating photo majors. During the course of the semester, the student produces two professional-quality exhibitions and a photographic portfolio. Within the context of this class, students may produce mixed media, performance, video, time-based work, as well as traditional black-and-white and color photography. Emphasis is placed on individual instruction, preparation for graduate study, and professional exhibition practice.

K411-K412 Individual Research in Photography (3-3 cr.) Senior-level course for students who have already taken K311. Will allow a student additional individualized instruction with a photography faculty member.

Printmaking

G201 Etching I (3 cr.) P: D101-D102, C121. Beginning course in intaglio printmaking, which introduces students to etching, engraving, and drypoint techniques. Students are instructed in basic printing processes and in use of the presses.

G202 Lithography I (3 cr.) P: D101-D102, C121. Beginning course in lithography dealing with basic techniques of black-and-white and color printing. Includes specific lectures in litho technology, materials, and application.

G203-G307 Silkscreen Printing I and II (3-3 cr.) Design and drawing for silkscreen processes, construction of equipment, and methods of making stencils (including photo stencils). Printing in black and white and in color.

G205 Monotype/Woodcut (3 cr.) P: D101-D102, C121. Beginning course in monotype and woodcut. Students learn traditional and experimental approaches to relief printmaking. Students are instructed on use of tools and materials and basic printing processes. Printing is in color and black and white.

G301-G303 Etching II and III (3-3 cr.) P: G201, G202, D201, D202. An extensive introduction to color printing processes in etching is provided at the beginning of the course. Students are required to do at least a part of their work in color. Other etching techniques not covered in G201 will also be presented.

G302-G304 Lithography II and III (3-3 cr.) P: G201-G202, D201-D202. Advanced study designed to extend students' ability to use their technical knowledge as a means of expression. Experimental printing in color and black and white.

G305-G306 Photo Processes for Printmaking I and II (3-3 cr.) P: K201-K202, G201-G202, and/or permission of the instructor. C: Enrollment in a 300-, 400-, or 500-level printmaking course. Introduction to the use of light-sensitive materials in printmaking processes. Involvement with nonsilver photographic processes such as kallitype, photoetching, photolithography (using halftone and contact materials), photosilkscreen, and gum printing. Color separation principles for printmaking processes.

G309 Monotype/Woodcut II (3 cr.) P: G205. Advanced study of monotype techniques, both traditional and nontraditional. Emphasis is placed on students gaining control of monotype process in order to accurately express their artistic vision. Students are encouraged to explore their individual goals and research into the various mediums available.

***G401-G402 Printmaking III and IV Etching (3-6 cr.)** A continuation of advanced processes in intaglio printmaking with demonstrations and experimentation with materials and techniques, including computer-assisted approaches. Individual and group critiques and discussions promote ongoing development of images and concepts.

***G401-G402 Printmaking III and IV Lithography (3-6 cr.)** A continuation of advanced processes in lithography with demonstrations and experimentation with materials and techniques, including computer-assisted approaches. Individual and group critiques and discussions promote ongoing development of images and concepts.

G403-G404 Individual Research in Printmaking I and II (3-3 cr.) Offered in conjunction with G401-G402 only. Research devoted to the student's own projects in printmaking.

*Printmaking majors may accumulate the 12 credit hours required in 400-level printmaking with any combination of the above etching and lithography courses. Printmaking students at this level may also work in monotype, woodcut, silk screen, or other printmaking mediums within the context of any of the G400-level offerings after consultation with the instructor.

G501-G502 Printmaking (3 and/or 6 cr.—3 and/or 6 cr.) Graduate-level printmaking for students who have completed G401-G402 or their equivalent. Visual research on a highly individual level with personal criticism by the instructor.

Sculpture

S201-S202 Sculpture I and II (3-3 cr.)

P: Foundation Program. Basic consideration of three-dimensional form in sculptural concept. Exposure to various related materials, techniques, and processes.

S301-S302 Sculpture III and IV (3 or 6 cr.—3 or 6 cr.) P: S201-S202, D201-D202. Emphasis on creative expression through sculpture. Covers wood and plastic materials, metal casting, and industrial fabricating techniques.

S401-S402 Sculpture V and VI (3 and/or 6 cr.)

P: S301-S302. Concentrated, specialized study of sculpture, with emphasis on extensive research in pursuit of individual direction.

S403-S404 Individual Research in Sculpture I and II (3-3 cr.) Research devoted to the student's own projects in sculpture.

Visual Communication

A201 Visual Communication I (3 cr.) P:

Foundation Program. Introduction and general exposure to the graphic design profession. Provides instruction in mastering technical and conceptual skills relative to design. Students explore the meaning and power of images and investigate problem-solving processes.

A202 Visual Communication II (3 cr.) P: A201, A251, A271, D211 and/or K201 C: A272, A252, D211 and/or K201. A continuation of Visual Communication I with emphasis on multifaceted projects. Projects explore combining type and conceptual image and continues to investigate problem-solving processes.

D211 Communicative Drawing (3 cr.)

P: Foundation Program. Emphasis is placed on communicating verbal concepts in a visual manner and developing drawing techniques.

A251 Typography I (3 cr.) P: Foundation Program. Introduction to the history, terminology, and the formal aspects of typography through projects using foundry type and letterpress combined with computer technology.

A252 Typography II (3 cr.) P: A201, A251, A271, D211 and/or K201 C: A272, A202, D211, and/or K201 or consent of instructor. Students are involved in a wide range of problems dealing with the manipulation of type. Course explores typographic systems and multiple-page formats.

A261 Introduction to Computer Imagery I (3 cr.) P: Foundation Program. An introductory course providing hands-on learning experiences in using the Macintosh computer and Adobe Photoshop, a pixel-based paint and image-editing software package, to create, scan, and manipulate images. A studio elective open to all Herron degree-seeking students with little or no computer experience who have completed the foundation year.

A262 Introduction to Computer Imagery II (3 cr.) P: A261 or permission of instructor. A continuing course that extends the student's abilities in using the Macintosh computer and Adobe Photoshop as a means of creative self-expression. A studio elective for all Herron degree-seeking students with the above prerequisites.

A271 Computers in Visual Communication I (3 cr.) P:

Foundation Program. An introductory computer course for exploring software programs used in the graphic design profession. Course covers basics in page layout, image generation, digital imaging, scanning, and color output. Required for all visual communication majors.

A272 Computers in Visual Communication II (3 cr.) P:

A201, A251, A271, D211, and/or K201. C: A252, A202, D211, and/or K201. A continuation of Computers in Visual Communication I. Students learn more advanced techniques in page layout and image-generation software. Course will introduce students to new media areas in interactive multimedia, animation, and Web design. Required for all visual communication majors.

A281 Macintosh Computer Basics (3 cr.)

Introduction to Macintosh computers. Basics include operation of the computer including save, store, retrieve, and print files; printer options at Herron; introduction to the Internet and e-mail; and introduction to four Macintosh software applications: Suitcase, QuarkXPress, Photoshop, and Illustrator.

A301 Visual Communication III P: A202, A252, A272, D211, and K201. C: A331, A341. An in-depth examination of design systems through the study of corporate identity. Students work on an extensive identity project, designing a logo and applying it to stationery and other applications. Emphasis is placed on research, analysis, and problem-solving processes. Students create a visual documentation of their design process.

A302 Visual Communication IV (4 cr.) P: A301, A331, A341. Students are challenged with projects that examine the social responsibility of graphic designers. More emphasis is placed on practical concerns and professional practice.

A331 Typography III (3 cr.) P: A202, A252, A272, or consent of instructor. C: A301, A341. Advanced exploration of typographic systems and multiple-page formats. Introduction to typographic explorations in time-based media.

A332 Typography IV (3 cr.) P: 331 and consent of instructor. Independent study in advanced typography. Student pursues individual projects that encourage typographic experimentation.

A341 Production for Design (3 cr.) P: A202, A252, A272. Students learn to prepare graphic design work for commercial printing. Includes field trips, lectures, and discussions on various printing processes, ink and paper selection, proofing methods, and binding. In a final group project, students prepare artwork digitally to be printed on a four-color offset press.

A362 Computer Imagery III (3 cr.) P: A262 and authorization from the instructor. A studio elective

course for Herron degree-seeking students. Provides the opportunity to explore personally relevant themes using digitally scanned, painted, and manipulated images as the medium.

A371 Introduction to Interactive Design (3 cr.)

Through reading, discussion, and hands-on projects, students discover how humans communicate using images, words, and sound, then learn to use the computer as a medium of expression. Students develop proficiency with image, sound, and multimedia authoring software. Projects emphasize storytelling and involving the use of computers in a compelling and satisfying experience.

A401-A402 Visual Communication V and VI (5-5 cr.) P:

A302, A331, A341. An advanced course dealing in graphic design concerns. Semester projects include writing a design brief, researching content, organizing material, and preparing a multifaceted design solution. Projects are more self-directed in nature.

A421 Independent Design Problems (3 cr.) P:

A301, A331, A341. For junior- and senior- level students, the course provides an opportunity for the student to choose and become involved in one extensive project. Students are required to write a proposal, establish goals, and obtain an instructor's approval. During the course, students are reviewed on a regular basis by faculty and peers.

A422 Design Seminar (3 cr.) P: A202, A252, A272 or consent of instructor. Students are exposed to a range of topics relating to the business of graphic design and its theory and practice. The course includes reading and discussion of current design issues, visiting designers, lecturers, and field trips.

A453 Professional Practice Internship (3 cr.)

P: A301, A331, A341, 3.00 GPA, and consent of instructor. Program offers students the opportunity to learn by working with professionals in a design studio or corporate design firm. Student must apply to the IUPUI Professional Practice Program and are required to interview by portfolio review.

A461 Professional Practice Studio (3 cr.) P:

A301, A331, A341, 3.00 GPA, and consent of instructor. Structured like a working design studio. Students are given an opportunity to design projects for clients of the IRIS Center for Digital Arts. Projects span all media from print to interactive multimedia and Web design. Managing time schedules, budget considerations, client/designer relationships, and general work ethics are covered.

A462 Computer Imagery IV (3 cr.) P: A362 and authorization from the instructor. A studio elective course for Herron degree-seeking students. Provides a continuing experience using digitally scanned, painted, and manipulated images as the medium to express student-proposed themes.

A471 Advanced Interactive Design (3 cr.)

Students work in computer-based media to explore topics including differences between traditional and digital media, the new relationship between the designs and user, and the influence of colors, sound, etc. Students work individually to create electronic notebooks and in teams on long-term projects.

Faculty

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Faculty Emeriti

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 Weber, Arthur, *Professor Emeritus of Foundation Studies; Diploma, Cincinnati Art Academy*

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Russick, David, *Director, Herron Gallery; M.F.A., B.F.A., Northern Illinois University*

Library

Hacker, Pam, *Visual Resources Assistant, B.F.A., Herron School of Art*
 Staum-Kuniej, Sonja, *Head Librarian; M.L.S., Indiana University; M.F.A., University of Georgia; B.A., Indiana University*



INDIANA UNIVERSITY KELLEY SCHOOL OF BUSINESS

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Contents

113 Message from the Associate Dean, Kelley School of Business	121 Student Organizations
113 Kelley School of Business and the Indianapolis Campus	121 Undergraduate Curriculum
113 Purpose of the School	121 Degree Requirements
114 Development of the School	122 General-Education Requirements
114 Organization of the School	122 Basic Business and Economics Requirements
115 Useful Phone Numbers	123 Typical Program for Full-Time Students
115 Graduate Programs	123 IUPU Columbus
115 Master of Business Administration	123 Departments and Concentrations
115 Master of Professional Accountancy	123 Department of Accounting and Information Systems
115 Doctoral Programs, IUB	123 Accounting Concentration
115 Student Services and Campus Resources	124 Computer Information Systems Concentration
115 Advising and Counseling	124 Department of Business Law
116 International Affairs	124 Department of Finance
116 Internships	124 Finance Concentration
116 Writing Center	125 Department of Management
116 University College	125 Management Concentration
116 Undergraduate Program	125 Entrepreneurship Emphasis
116 Program Objectives	125 Management of Nonprofit Organizations Concentration
116 Honor Code	125 Human Resource Management Concentration
117 Admission	125 International Studies Concentration
117 Policies Governing the Undergraduate Program	125 Department of Marketing
117 Academic Regulations and Scholastic Standards	125 Marketing Concentration
117 Academic Misconduct	126 Marketing-Distribution Management Concentration
117 Academic Standing	126 Undergraduate Courses
117 Auditing Courses	126 Accounting and Information Systems
117 Columbus Students Transferring to IUPUI	127 Computer Information Systems
118 Integrative Core Prerequisites	127 Business Law
118 Maximum Semester Credit-Hour Load	128 Finance
118 Military-Related Credit	128 Real Estate
118 Physical Education Courses	128 Management
118 Probation, Dismissal, and Readmission	129 International Business
118 Upper-Level Business Courses	129 Marketing
118 Credit Earned Externally or Transferred to IU	130 Operations and Decision Technologies
118 CLEP and DANTES Credit	130 General and Honors Courses
118 Credit for Independent Study by Correspondence	131 Kelley School of Business Administrators and Faculty
118 Credit for Self-Acquired Competency	
118 Transfer of Credit	
119 Grading System	
119 Incomplete Courses	
119 Pass/Fail Option	
119 Withdrawals	
119 Graduation Requirements	
119 Credit Deadline	
119 Credit Hours and GPA Requirements	
119 Senior Residency Requirement	
119 Degree Applications	
120 Statute of Limitations	
120 Special Opportunities	
120 Awards, Recognition, and Scholarships	
120 Business Foundations Certificate Program	
120 Honors Program	
120 Internships	
120 Minor in Business	
121 Outside Minors for Business Students	
121 Overseas Study Programs	
121 Second Bachelor's Degree	

Message from the Associate Dean, Kelley School of Business

Thank you very much for your interest in the undergraduate program of the Kelley School of Business. The school's history can be traced to the early 1920s, when a small group of students and faculty had the foresight to undertake a program of study that has become known throughout the United States as one of the finest of its kind. From the Indianapolis and Bloomington campuses, which offer a "core program" of study, the Kelley School of Business conducts operations around the world, with educational programs extending to the Far East and to Western and Eastern Europe.

The joint resources of Indiana University-Purdue University Indianapolis and IU Bloomington permit us to offer outstanding programs in business administration to a significant percentage of Indiana's population.

IUPUI is Indiana University's capital city campus. As Indiana's state capital and a major metropolitan area, Indianapolis is an ideal place to study business. Within blocks of the Business/SPEA Building is the highest concentration of corporations, government offices and agencies, small businesses, health care providers, professional practices, and not-for-profit organizations in the state. The campus affords a dynamic environment for learning, conducting research, teaching, and collaborating with business, a combination which fosters maximum personal development. It is difficult to imagine a richer context in which men and women of all ages may enhance their knowledge and leadership skills.

The curriculum of the undergraduate program is based on a solid foundation of study in the liberal arts and sciences in order to develop interpersonal, communications, and decision-making skills. To this can be added specialized education in the fields of accounting, computer information systems, finance, management, human resource management, marketing, or marketing distribution management. But, in today's global environment, training in business functions alone is insufficient. For this reason, students are asked to broaden their program of studies to include learning relevant to international business affairs. This requirement may be fulfilled in any one of the following ways: language study, international business and economics courses, participation in an approved overseas study program, or approved liberal arts course work with an international focus. Our intent is to help prepare students for the global economic environment of the future.

The entire program is offered in a convenient, accessible way to both full- and part-time students. High-tech delivery systems, joint programs with other schools at IUPUI, a challenging Honors Program,

student clubs, and alumni activities make the Kelley School of Business an exciting place to be. Participation in the undergraduate program is more than merely taking courses. It is a comprehensive educational experience that prepares you to join the growing number of IU graduates providing leadership in business organizations around the world.

Roger W. Schmenner
Associate Dean for Indianapolis Programs

Kelley School of Business and the Indianapolis Campus

Purpose of the School

The basic purpose of the Indiana University Kelley School of Business is to foster learning about the creation, management, and continuing adaptation of organizations and enterprises in an ever-changing environment.

This role requires that the school engage in the following:

- the generation and documentation of knowledge and the sharing of that knowledge with the academic community;
- the organization and preservation of knowledge;
- the transmission of knowledge to a broad mix of students and practicing executives;
- the application of knowledge to benefit our many constituencies.

Responsibilities

The school will realize this vision to the extent that it succeeds in addressing the needs of its various constituencies, each of which has specific and often widely differing expectations. To meet these obligations, the school must balance its efforts along several dimensions.

- As an academic institution, the school is responsible for the quality and quantity of its research, for the preparation of new researchers, and for service to the university system and wider academic community.
- As a public institution, the school is responsible for the quality of the graduates from its programs and for sharing both its information and its expertise with the community at large.
- As a professional school, the school is responsible for serving the diverse segments of the business community in Indiana, across the nation, and around the world.
- As a state-assisted institution, the school has a continuing responsibility to serve the people of the state of Indiana.

Shared Values

Critical to the school's success is its distinctive culture. Certain key values and widely shared beliefs shape the essential character of the school and thereby become important criteria for basic decisions.

Quality Emphasis The school seeks to meet its goals with distinction and to do so consistently. This principle requires insight into its areas of competence, the aspirations of the faculty and staff, and the availability of resources.

Proactive Change Change in any organization is driven ultimately by the long-term forces that shape the body of constituencies it was created to serve. Business organizations constantly undergo change; the rate may vary, but the environment is always dynamic. The school is committed not only to responding to change via its research variety and curriculum emphases, but to anticipating basic changes as well.

Integrative Programs The school attracts faculty who have a broad understanding of business enterprises and a capacity for configuring and interrelating business functions. This capacity is demonstrated in the school's academic programs, which emphasize the interdependence of business functions, provide a solid grounding in the liberal arts, and recognize the importance of breadth of understanding to overall organizational success.

Programmatic Approach to Education The school's degree programs are more than just a set of requirements. Every step of the degree sequence comprises a carefully planned and coordinated set of activities. Support activities such as admissions and placement counseling, extracurricular activities, overseas study opportunities, and faculty involvement in student activities enrich the student's course work.

Balance and Diversity The school conscientiously seeks to achieve breadth in its research focus, curriculum, pedagogy, and faculty and student composition. Diversity of viewpoint and background is encouraged. Heterogeneity, in lieu of regimentation, is nurtured. The school recognizes the need to provide students and faculty with a rich, balanced context for the study of business and a learning environment that is conducive to the lively exchange of ideas and intellectual stimulation necessary for productive, independent scholarship.

Citizenship Good citizenship is valued strongly in the school. Citizenship involves more than fulfilling formal academic requirements. It encompasses participation in multiple roles, a willingness to serve, and a commitment to perform activities that sustain the broader life of the school as an institution. Citizenship is manifested in both respect for individual rights and acknowledgment of individual responsibilities to the institution.

Collegiality A spirit of collegiality is a hallmark of the school. It is grounded in the faculty's inherent respect for each other and for students as individuals. The goal is to maximize development of the specific abilities and potential each student brings to the institution. The school sustains this spirit through mutual trust and demonstrates it through the encouragement of student-faculty interaction and student consultation through organizations and advisory groups.

Undergraduate Principles On May 7, 1998, the IUPUI Faculty Council approved the adoption of the following six principles of undergraduate learning:

core communication and quantitative skills; critical thinking; integration and application of knowledge; intellectual depth, breadth, and adaptive ness; understanding society and culture; and values and ethics. These principles provide the conceptual framework for the general education component of the undergraduate curriculum at the Kelley School of Business.

Development of the School

Today, IU's Kelley School of Business operates as one school on two campuses: Indianapolis and Bloomington. Business education at Indiana University began in Bloomington more than a century ago. The first Indiana University catalog, 1830-31, included political economy in the curriculum. From this first course, there developed a Department of Political Economy, later referred to as the Department of Economics and Social Science. From early courses in these areas grew what is now referred to as the "core program" of study in the Kelley School of Business.

In 1902, several business courses were introduced and listed in the university catalog of that year. A two-year "commercial course," preceded by two years of pre-commerce work in liberal arts, was established. In 1904, the first business catalog, referred to as the commercial course number, was published. These commerce courses constituted the last years of a four-year course of study leading to a baccalaureate degree. The first two years were a pre-commerce requirement and included all the required courses of the liberal arts curriculum of that period.

Thus was established more than a century ago the pattern of building a program of professional education for business upon a liberal arts base—a pattern maintained throughout the years and currently emphasized in the education of the American businessman and businesswoman. In 1920, a separate School of Commerce and Finance was organized. The school became a member of the American Assembly of Collegiate Schools of Business in 1921, and in 1933 it was renamed the School of Business Administration and placed under the direct control of its own faculty. In 1938, the title of the school was shortened to the School of Business.

The Junior Division (now University College) of the university was established for all first-year students in 1942. From that time until 1994, enrollment in the School of Business did not include freshmen. Graduate work in business administration, first authorized in 1936, expanded rapidly after World War II. Programs for the degrees Master of Business Administration and Doctor of Business Administration were instituted in 1947. In 1961, the designation of the area of study formerly referred to as the Graduate Division of the School of Business was changed to the Graduate School of Business. With the reorganization of the university in November 1974, the School of Business began operating at the Bloomington and Indianapolis campuses.

Although business courses were offered as early as 1916 on the Indianapolis campus, the bachelor's degree in business was not available at the

Indianapolis campus until the 1969 merger with Purdue University. Beginning in 1969, divisional structure emerged in Indianapolis with an assistant chairperson at its head. In 1969-70, a complete undergraduate degree program for four major areas in business was offered, as well as three two-year certificate programs.

The terms "Graduate Kelley School of Business" and "undergraduate program" are used in this bulletin on appropriate occasions to designate the level of study concerned. When the term "Kelley School of Business" is used, reference is being made to the entire school, including both the Graduate School of Business and the undergraduate program on both campuses.

Organization of the School

The school's resident faculty of approximately 200 members is its basic governing body. The various programs and curricula, as well as all major policy considerations, are reviewed and approved periodically at meetings of the entire resident faculty. Administrative support for the school is provided by the Office of the Dean, by a chair in each of the school's eight academic departments, and by a chair of each academic program. The Academic Council administers Kelley School of Business policy. The council is made up of those administrators mentioned above, with the addition of two elected faculty representatives. Additionally, a number of committees appointed by the dean assist by recommending to the faculty various academic and operating policies. At times, these committees are also assigned specific administrative responsibilities.

The school's administration manages its programs on both the Bloomington and Indianapolis campuses. The Office of the Dean consists of the dean, the associate dean for academics, the associate dean for Indianapolis programs, and the associate dean for research and operations. It is assisted by various chairs and directors. Administrative support for instructional programs is provided by five organizational units: the Kelley School of Business Undergraduate Program Office (Bloomington and Indianapolis), the M.B.A. Office (Bloomington), the M.B.A. Office (Indianapolis), the Doctoral Program (Bloomington), and Kelley Executive Partners. Admissions, student counseling and advising, and degree certification are provided by professional staff members assigned to each of these organizational units. (See section entitled "Graduate Programs" in this bulletin.)

Departmental and Curricular Structure The faculty of the Kelley School of Business is organized into eight academic departments. Most of the school's course offerings are provided by faculty in the organizational units. As indicated in the descriptions of the school's curriculum in this bulletin, a department may be responsible for several areas of specialization.

Although recognition is given to the importance of departmental units, the Kelley School of Business follows the general principle of flexibility in organization. Thus, some members of the faculty may

have responsibilities in two or more departments, programs, or areas of specialization. As well as being responsible for a specific division of the school's operation, the chairs of the departments are considered to be general officers of the school.

Research Centers and Institutes In recent years, the Kelley School of Business has put new emphasis on the establishment and promotion of research centers and institutes. These organizational units are distinct from the traditional academic departments, and therein lies their strength. The centers have research and outreach to the business community as their primary objectives. This focus serves to make them more interdisciplinary in nature and more visible both inside and outside the university. The Kelley School of Business currently supports eight research centers, each with a specific mission and a natural constituency in the business world:

Indiana Business Research Center (IBRC)
Institute for Research on the Management of Information Systems (IRMIS)
Institute for Urban Transportation
Center for Real Estate Studies
Center for Entrepreneurship and Innovation
Indiana Center for Econometric Model Research
Indiana Center for Global Business
International Business Education and Research

Publications The Kelley School of Business assists the faculty in preparing research results and other publications for communication to various audiences. In addition to periodic monographs and discussion papers, the school regularly distributes two publications, both appearing six times a year.

Indiana Business Review (IBR) This publication contains articles based on research analysis of the economic environment of the state and its regions, counties, and cities. Because of its importance to planners in both the public and private sectors, *IBR* is provided without charge to those who request it.

Business Horizons Since 1957, the Kelley School of Business has published a journal of analysis and commentary on subjects of professional interest to business executives and students of business. *Business Horizons* is managed by an editorial board drawn from the school's faculty. It publishes articles by many outside contributors as well as by the school's own faculty and students and is sent to a national and international audience on a subscription basis.

Executive Education The director of Kelley Executive Partners is responsible for coordinating all nondegree educational programs, including the Indiana Business Seminars, the Indiana Executive Program, and many other institutes and programs. This office conducts or sponsors a number of seminars in which students, faculty members, and members of the business community join in considering current issues of mutual interest. Seminars may concern management, production, marketing, financing, or related aspects of business, focusing on either internal business operations or the national or world economies in which these operations take place.

Useful Phone Numbers

(Area Code 317)

Academic Advising—Business	
Undergraduate Advisors	274-2147
Fax	274-2483
Adaptive Educational Services	274-3241
Admissions	
Undergraduate	274-4591
Graduate—Business	274-4895
Bursar	274-2451
Career Center	274-2554
Dean of Students, IUPUI	274-4431
Financial Aid	274-4162
Graduate Non-Degree	274-1577
Health Center	274-8214
Housing	274-7200
International Affairs	274-7000
Personal Counseling	274-2548
Registrar	274-1501
<i>Sagamore</i> (student newspaper)	274-3455
Student Assembly, IUPUI	274-3907
Student Services—Business	274-2466
Testing Center	274-2620
Transcripts	274-1519
University College	274-4856

Graduate Programs

Master of Business Administration

The Indiana University M.B.A. Program is recognized as one of the top graduate business programs in the country. It offers two programs leading to the Master of Business Administration degree.

Admission to either program is selective. It is based on evaluation of factors including results from the Graduate Management Admissions Test, undergraduate performance, essays, recommendations, work experience, leadership, and other indicators of potential for success in a rigorous program of study and in a business career.

Bound by a common body of knowledge and philosophy, each program is designed to meet the diverse needs of men and women at different levels of career development and responsibility. For further information on the curriculum, format, prerequisites, and admission requirements for each program, contact the specific program of interest.

M.B.A. Program, Indianapolis Campus

Candidates for the M.B.A. degree in the evening program in Indianapolis come from diverse academic backgrounds and represent many businesses and industries. The program incorporates a wide range of business issues and integrates business disciplines to provide a strong program experience. Study teams and networking play an integral part in the evening program. Skill building in the areas of leadership,

collaborative decision making, teamwork, and communications are integral aspects of the total program experience.

Modules of study generally span one semester with class meetings two nights a week. A streamlined 32-month, 51 credit hour program allows for maximum planning and integration with career and personal commitments.

Qualified men and women from all academic backgrounds, representing any business or industry, who are motivated to study in a challenging graduate business program are encouraged to apply for admission to graduate programs in the Kelley School of Business at Indiana University in Indianapolis. Application materials are due in the M.B.A. office by May 1 for August entry and November 1 for January entry.

For information, contact the M.B.A. Office:

M.B.A. Program
Kelley School of Business
IUPUI
Business/SPEA 3024
801 W. Michigan Street
Indianapolis, IN 46202-5151
Phone: (317) 274-4895
Fax: (317) 274-2483
Web site: kelley.iupui.edu
E-mail: mbaindy@iupui.edu

M.B.A. Program, Bloomington Campus

Bloomington's program is a full-time, two-year residential program taught during the day for men and women who plan to take a leave from their careers while they pursue graduate education.

Director of Admissions and Financial Aid,
Graduate Programs
Kelley School of Business
Indiana University
1309 E. Tenth Street
Bloomington, IN 47405-1701
Phone: (812) 855-8006

Master of Professional Accountancy

The M.P.A. Program is devoted to teaching the skills required of today's accountant. The plan of study insures that students are not only well versed in the technical aspects of their chosen specialty but also the non-technical skills that are required for them to become true leaders in industry and government.

M.P.A. Program, Indianapolis Campus

Students may apply to the M.P.A. Program with or without a bachelor's degree in business or accounting. Those entering the program with a bachelor's degree in business normally must complete a minimum of 30 credit hours of course work. Those with backgrounds in other fields may be required to do additional work to develop expertise in the core areas of business.

Students may apply to the program after completing a bachelor's degree. Admission selection is based on

evaluation of factors including results from the Graduate Management Admissions Test (GMAT), undergraduate performance, recommendations, and work experience.

For further information on the curriculum format, prerequisites, and admission requirements, contact:

M.P.A. Program
Kelley School of Business
IUPUI
Business/SPEA 4000
801 W. Michigan Street
Indianapolis, IN 46202-5151
Phone: (317) 278-3885
Web site: kelley.iupui.edu
E-mail: mpabus@iupui.edu

Doctoral Programs, Bloomington Campus

Indiana University offers two doctoral programs in business: the Doctor of Philosophy (Ph.D.) and the Doctor of Business Administration (D.B.A.). The former degree is awarded through the University Graduate School, while the latter is awarded through the Kelley School of Business. The D.B.A. has been offered since February 1954; the Ph.D. in business, since October 1, 1982.

The Office of Doctoral Programs in the Kelley School of Business administers both programs. Students may select either degree designation at the time of application. It is possible to change from one degree to the other provided all the requirements of the new degree are met. While the objectives and requirements for both degrees are quite similar, there are some differences. Applicants should decide which degree best fits their career and intellectual objectives.

Chairperson, Doctoral Programs
Kelley School of Business
Indiana University
1309 E. Tenth Street
Bloomington, IN 47405-1701
Phone: (812) 855-3476

Student Services and Campus Resources

See also "Useful Phone Numbers" at the beginning of this bulletin.

Advising and Counseling

Our professional advising staff members are devoted to assisting students in making informed program and career choices. All undergraduates in the Kelley School of Business choose an area of concentration, such as accounting or finance. (See "Departments and Concentrations" in this bulletin.) Faculty members in each area of concentration, as well as the professional advisors, are available to help students understand and plan for meeting concentration requirements. Academic advisors for the Kelley School of Business are available in

Business/SPEA Building 3024, 801 W. Michigan Street. Please call (317) 274-2147 to schedule an appointment with an advisor. Students also may obtain counseling from the Office of Career and Employment Services, the Office of International Affairs, or from University College (UC).

International Affairs

International students may continue to seek general or personal support services through the Office of International Affairs even after admission to the Kelley School of Business.

Undergraduates in the Kelley School of Business are eligible to participate in foreign study programs established by Indiana University. These programs offer undergraduates the opportunity to do part of their academic work abroad. Students can participate in summer programs in the Netherlands, Germany, or Finland; semester programs in the Netherlands, France, Chile, and Singapore; and regular academic year programs, as well as programs offered through the Center on Southeast Asia.

Students also may apply for overseas internships. Advanced standing, high scholarship, and strong language skills are required. In addition, IUPUI administers a number of short-term programs of interest to business students.

International students for whom English is a second language and who seek information about language tests or about academic assistance should contact the Coordinator of English as a Second Language, Cavanaugh Hall 243, 425 University Blvd.; (317) 274-2188.

On-campus housing is available for international students. (See the "Housing" section of the bulletin.)

For more information, contact the Office of International Affairs, Union Building 207; phone (317) 274-7000.

Internships

The Professional Practice Program is an internship program for the Kelley School of Business. The program places students who are in advanced stages of their degree programs in paid positions for one-semester placements. (See also the section entitled "Internships" under "Special Opportunities" in this bulletin.)

Writing Center

The University Writing Center provides tutoring for all kinds of writing needs as well as a hotline service for telephone inquiries. Faculty and trained writing fellows serve as tutors. Business school students are encouraged to use the center's services. The writing center is located in Cavanaugh Hall 427, 425 University Blvd.; phone (317) 274-2049. The hotline number is (317) 274-3000.

University College

University College (UC) is the academic home for most IUPUI undergraduate students with fewer than 56 credit hours. Among the UC students are students who plan a business major but have not yet been admitted into the Kelley School of Business. To

request a UC student manual, please contact University College, IUPUI, 815 W. Michigan Street, Indianapolis, IN 46202-5164; phone (317) 274-4856.

International students who plan to apply to the business school are served academically and administratively by the Office of International Affairs rather than the UC. (See the "International Affairs" section of this bulletin.)

Some students with a bachelor's degree may want information about taking additional undergraduate courses; for example, a student who holds a B.A. degree may wish to take accounting courses to prepare to sit for the C.P.A. exam. Such students should contact the Graduate Nondegree Office, Union Building 518, 620 Union Drive; or phone (317) 274-1577. (See also the section "Second Bachelor's Degree" in the "Special Opportunities" section of this bulletin.)

Undergraduate Program

The Undergraduate Program of the Kelley School of Business provides opportunities for breadth of education as well as for a reasonable amount of specialization. As a member of the Association to Advance Collegiate Schools of Business (AACSB), the school subscribes to the principle that a significant portion of a student's academic program should be in general-education subjects, complemented by study in the basic areas of business administration. This assures the planning of balanced study programs while enabling a student with an interest in one or more professional areas of business to specialize in those fields.

All undergraduate study programs also include courses that ensure the development of a basic understanding of the principles and practices involved in the management of business firms in the dynamic economic, social, and political environment of the world today. At IUPUI, three interrelated, rigorous junior-level courses in the management of finance, marketing, and operations, known collectively as the integrative core, are required of all business majors. Integrative core studies emphasize the trends likely to shape the pattern of the world in the years ahead. Beyond these basic requirements, students are given an opportunity to pursue studies from a wide variety of subject areas.

Honors courses are available to students with eligible records. A number of internship programs, industry studies, and overseas study programs are also available to students with specialized professional interests.

To develop leadership skills and a sense of social responsibility, students are strongly encouraged to participate in one or more of the student organizations at IUPUI. Special emphasis is placed on volunteerism and the personal benefits derived from participating in community service. The Kelley School of Business Learning Community course, X103,

involves freshmen in a service project in the local community school system. This course is an entrance requirement for admission into the school. The business course X401 Community Service Learning offers students an opportunity to earn course credit for participation in a specific volunteer project.

Upon attaining senior standing, students enjoy a broader range of elective courses and special opportunities for discussion and counseling with senior members of the faculty. Courses at the senior level assure widespread participation by students in the solution of case studies, projects, and special problems drawn from the contemporary business scene. Also, seniors typically hold offices in professional student organizations, which gives them exceptional extracurricular experience. The business course X420 Business Career Planning and Placement prepares students for the transition to the world of business. This course also helps them locate and select employment opportunities that hold the greatest promise for them.

Program Objectives

Graduates of the Undergraduate Program of the Indiana University Kelley School of Business should:

1. have a general knowledge and appreciation of human accomplishments in the physical sciences, arts, humanities, and social sciences;
2. possess a broad-based knowledge of business and the business firm and the role business plays in our society;
3. understand the national, international, political, social, and economic environment that affects a firm's operations;
4. be able to articulate their thoughts orally and in writing and be computer literate;
5. have a sensitivity to and appreciation of ethical issues;
6. possess an appreciation of the opportunities and problems of managing complex organizations;
7. have the skills and ability to work effectively with others in the completion of joint tasks;
8. possess the ability to find and formulate problems, think analytically, and recommend solutions to problems.

The curriculum of the undergraduate program is designed to provide students with the above attributes. Graduates should have acquired an education that will serve them throughout their careers in business, not just prepare them for an entry-level position.

Honor Code

To foster an academic environment that holds personal integrity and honesty in the highest regard, the undergraduate students at the Kelley School of Business have established an honor code to which students are willing to hold not only themselves but also their peers. This code endorses shared values that incorporate honesty, responsibility, and ethical behavior.

This student-written code describes violations, reporting requirements, and procedures for addressing academic misconduct. It encompasses all courses taught within Indiana University's Kelley

School of Business and includes all students enrolled in them. Students who have been admitted to the Kelley School of Business are expected to continue their commitment to ethical behavior in all of their endeavors, including course work outside of the Kelley School of Business, internships, co-op programs, and overseas study.

Admission

Admission Requirements

Admission to IU's Kelley School of Business at Indianapolis is possible at several different points in a student's academic career. Procedures and requirements for each option are described below. For a key to the codes used in referring to different courses, see the beginning of this bulletin.

Please note that *all applications for admission to the university* are submitted through the IUPUI Office of Undergraduate Admissions, Cavanaugh Hall 129, 425 University Boulevard, Indianapolis, IN 46202-5140; telephone: (317) 274-4591. Beginning students normally enter University College (UC) where they are advised on enrolling in required general-education and pre-business courses.

Dual Admission

Upon recommendation of the Office of Admissions, high school students who have been admitted to IUPUI may be considered for admission into the Kelley School of Business as freshmen if they rank in the top 25 percent of their high school graduating class and have re-centered SAT I scores over 1010 (ACT composite scores of 22 or above). If these students are admitted to the Kelley School of Business, they are dually admitted to both the School of Business and University College. Students will retain early admission status as long as they are making satisfactory progress in their academic program, including business prerequisite courses. This option offers students special access to Kelley School of Business advisors and opportunities for early involvement in Kelley School of Business organizations and activities.

Option I Admission Criteria

To be considered for admission under the Option I admission standards, students must meet the following requirements:

1. Complete between 26 to 56 credit hours of college course work that count toward graduation with an overall cumulative GPA of 2.5 or better. This course work may be taken at Indiana University or at another accredited institution offering a comparable program. (Students with more than 26 credit hours who apply for admission to the Kelley School of Business for the first time may do so using the Option I admission standards. This also applies to transfer students.)

2. Complete ENG W131 (or equivalent), X100, and X103 with a grade of C or higher.

3. Successfully complete two or more of the following courses with an average GPA of 2.5 or better:

BUS K201 The Computer in Business
MATH M118 Finite Mathematics
MATH M119 Brief Survey of Calculus

For admission purposes, the two highest grades achieved in the courses listed above will be used to compute the applicant's admission grade point average. (If only two of the three courses are taken, the admission decision will be based upon the grades achieved in both courses.) A minimum grade of C in BUS K201, and a C- in M118 and M119 is required.

4. Submit an application by the required deadline. Application periods for admission are January 15-March 1 for fall admission and August 15-October 1 for spring admission. Applications are available at the Kelley School of Business, Business/SPEA Building 3024, and online through the School of Business Web site at kelley.iupui.edu.

Admission to the school is competitive, and each applicant is considered individually. Applications will initially be reviewed on the basis of grades. Additional factors include extracurricular and community service activities, work experience, rigorosity of course work taken, grade trends, high school class rank, and factors beyond the student's control that may have temporarily impaired academic performance. Students may apply only one time under Option I criteria. **NOTE:** All students admitted under Option I must still complete all Option II requirements before taking Integrative Core (I-Core).

Option II Admission Criteria

Students who have been denied admission based upon Option I admission standards or have more than 56 credit hours are eligible to apply according to the following criteria:

1. Complete 56 credit hours of college course work that counts toward graduation with an overall cumulative GPA of 2.0 or better. This course work may be taken at Indiana University or at another accredited institution offering a comparable program.

2. Successfully complete the following nine prerequisite courses with a minimum grade of D in each course and an average GPA of 2.0 or better:

BUS A100 Business Accounting Skills
BUS A201 Introduction to Financial Accounting
BUS A202 Introduction to Managerial Accounting
BUS L203 Commercial Law I
ECON E201 Introduction to Microeconomics
ECON E202 Introduction to Macroeconomics
ECON E270 Introduction to Statistical Theory in Economics and Business
MATH M118 Finite Mathematics
MATH M119 Brief Survey of Calculus I

3. Complete the following courses with a grade of C or above in each course:

ENG W131 Elementary Composition I or equivalent
BUS K201 The Computer in Business
BUS X100 Business Administration: Introduction
BUS X103 Business Learning Community
BUS X204 Business Communications
COMM R110 Fundamentals of Speech Communication

4. File an application by the appropriate deadline for fall or spring admission. See details under "Option I Admission Criteria" in this section.

Although other factors may be taken into consideration in the admission decision, applicants applying under the Option II admission standards will

be reviewed primarily upon the grade point average achieved in the nine prerequisite courses listed above.

For additional information about admission to the Kelley School of Business, contact the undergraduate office at Business/SPEA Building 3024, 801 W. Michigan Street, Indianapolis, IN, 46202-5151; phone: (317) 274-2147.

Policies Governing the Undergraduate Program

Academic Regulations and Scholastic Standards

Under the General Scholarship Rule, any student who does not possess the necessary preliminary training or who lacks other qualifications may be required by the Committee on Admissions and Probation to enroll in such courses as the committee may designate or to take such other corrective action as is necessary or desirable. The committee may review a student's record at any time and may take whatever action seems necessary for the student's best interest or for the best interest of the school.

Upon the recommendation of the appropriate school committee and with the approval of the dean of the Kelley School of Business, any student whose work is unsatisfactory or whose conduct is unethical may be dismissed from the Kelley School of Business.

Academic Misconduct Indiana University and the Kelley School of Business expect that students will follow the fundamental principles of academic integrity in the pursuit of learning. Academic integrity requires that students take credit only for their own work and ideas. Violation of these principles is considered an act of academic misconduct.

The Kelley School of Business strictly follows the guidelines listed in the *Code of Student Rights, Responsibilities, and Conduct* and the Kelley School of Business Honor Code. In addition, the school's policy regarding the appropriate penalty for any degree of academic misconduct permits the removal of the student from the course involved, with a grade of F.

Academic Standing Those students who consistently maintain a minimum grade point average of 2.0 (C) or above, in both their cumulative and semester records are considered to be in good standing.

Auditing Courses Students are not permitted to audit undergraduate business courses or M.B.A. courses. See the Master of Professional Accountancy program chair for the current policy regarding audit of M.P.A. classes.

Columbus Students Transferring to IUPUI

Students who matriculate to Indiana University-Purdue University Columbus (IUPUC) and who wish to earn a Kelley School of Business degree must meet senior residency requirements and complete the last 30 credit hours on the IUPUI campus. Students cannot take any of the final course work in Columbus to receive the Kelley School of Business degree. The eight-year statute of limitations (see "Graduation

Requirements”) mandates that students complete their degree requirements within eight years in order to earn a Kelley degree. This policy does not apply to students who matriculated prior to the fall of 2001.

IUPUC students who wish to earn a Kelley degree must apply for admission to the Kelley School of Business in Indianapolis by the stated deadlines and meet all Indianapolis program requirements. Course work may be taken at either campus for students who matriculated to IUPUC prior to fall 2001. Students must also apply to graduate from the Kelley School of Business in Indianapolis.

Integrative Core Prerequisites The prerequisites for the Integrative Core are: a total of 56 credit hours or more; overall cumulative GPA of 2.0 or better; BUS K201, BUS X100, BUS X103, BUS X204, COMM R110, and ENG W131 (with a grade of C or better); BUS A100, BUS A201, BUS A202, BUS L203, ECON E201, ECON E202, ECON E270, MATH M118, and MATH M119 (with a grade of D or better and a grade point average of 2.0 or better). Option 1 admission to the Kelley School of Business in Indianapolis does not guarantee admission into the Integrative Core.

Maximum Semester Credit-Hour Load A typical academic load for full-time students is 12 to 15 credit hours. A student expecting to carry more than 18 credit hours during a regular semester or 8 credit hours in a summer session should have a minimum cumulative grade point average of 3.0 (B) or have earned a 3.0 (B) grade point average in the previous full semester.

Military-Related Credit Both Army and Air Force ROTC programs are available at Indianapolis. Completion of either program leads to a commission as a second lieutenant. Programs are available to both men and women. Courses are pursued in conjunction with an academic curriculum and receive academic credit as electives.

Placement credit is available to veterans and students with high school ROTC backgrounds. Veterans of military service are also eligible for academic credit as a result of their military training and experience. The Kelley School of Business follows the provisions of the “Guide to the Evaluation of Education Experiences in the Armed Services” issued by the American Council on Education (ACE) in granting credit. Credit in business subjects is evaluated as “undistributed” and is subject to oral or written examination for specific equivalency.

Physical Education Courses Students may elect a maximum of 4 credits of elective physical education courses (HPER courses with the prefix “E”). Physical education courses carry regular credit, count toward minimum degree requirements, and are included in the cumulative grade point average.

Probation, Dismissal, and Readmission

Students are sent a warning following any regular semester or summer session in which they fail to attain a semester grade point average of 2.0 (C). They are placed on critical probation whenever their cumulative grade point average is below a 2.0 (C). At the discretion of the Committee on Admissions and Probation, a student whose cumulative grade point

average falls significantly below a 2.0 (C) or whose grade point average continues to decline may be dismissed from the school.

The Committee on Admissions and Probation considers readmission petitions from students who have been dismissed. In such cases, petitions must be submitted at least *30 days prior* to the semester or summer session in which the student wishes to be readmitted.

Upper-Level Business Courses Kelley School of Business students must have senior standing and have completed Integrative Core to enroll in 400-level business courses. Enrollment in business courses numbered 301-499 is limited to the following:

1. Kelley School of Business students.
2. Non-business students who are registered for the minor in business.
3. Non-business students who are registered for degree programs requiring specific business courses. Such programs include engineering, health administration, journalism, and telecommunications. (Enrollment will be permitted only in the *required* business courses using this priority category.)
4. Other students with specific permission of the department offering the course. Departments may choose to declare certain courses “open enrollment” courses.
 - Graduate Continuing Nondegree students may take upper-level business courses with permission.

Unless students are registered in an official program, as identified in items (2) and (3) above, a maximum of 12 credit hours of upper-level business courses may be taken. In addition, for students enrolled in these specific programs, upper-level business courses may comprise no more than 25 percent of their programs.

To enroll in an upper-level business course (301 or higher), a non-business student must meet course prerequisites and have a minimum cumulative grade point average of 2.5 (on a 4.0 scale).

Credit Earned Externally or Transferred to IU

CLEP and DANTES Credit Kelley School of Business does not accept CLEP or DANTES credit for business courses; however, the school will accept CLEP or DANTES credit awarded by other IUPUI academic units for non-business courses.

Credit for Independent Study by

Correspondence The Kelley School of Business accepts a maximum of two courses (6 credit hours) taken by correspondence as counting toward the degree requirements. However, because of their basic importance in the degree program, the following courses or their equivalents may not be taken by correspondence to satisfy admission or degree requirements:

- Business or economics courses
- Prerequisites (for both business and non-business courses)
- Courses required for a concentration (for both business and non-business courses).

Any exceptions to the above policy must have the written approval of the Executive Director of Academic Programs, Indianapolis. **Note:** All correspondence courses taken in the final semester to fulfill Bachelor of Science degree requirements must be completed three weeks prior to the end of a regular semester.

Credit for Self-Acquired Competency The Kelley School of Business does not award credit on the basis of self-acquired competency (for example, work experience). However, the school will give credit examinations for specific courses when the chair of the department offering the course feels a student’s experience gives that student a reasonable chance of passing the examination. To be eligible to take a credit examination, the student must be regularly registered at IUPUI.

The school will not accept the transfer of credit from other institutions for business courses if the credit was awarded on the basis of self-acquired competency.

For non-business courses, the school will accept course-specific credit awarded on the basis of self-acquired competency by other baccalaureate-granting divisions/schools of Indiana University and by other institutions accredited by the North Central Association of Colleges or comparable regional associations.

The school will not accept general (non-course-specific) self-acquired competency credit awarded by other divisions or schools of Indiana University or by other institutions.

Transfer of Credit

1. *Transfer of Credit from Other Colleges and Universities*

Acceptance of credit from other institutions, including Purdue University, will be determined by the IUPUI Office of Admissions. The applicability of credit toward degree requirements in the Kelley School of Business will be determined by the school. Credits in business courses at the lower-division level (100- and 200-level courses) that are accepted for transfer are usually accepted for specific course equivalency.

Courses in upper-division business subjects (300- and 400-level courses) may be accepted for specific equivalency if the course work is taken in the junior or senior year at a four-year institution that is accredited by the Association to Advance Collegiate Schools of Business (AACSB). If the institution is not so accredited, credit in upper-division courses accepted for transfer will be accepted as “undistributed” credit subject to oral or written examination for equivalency.

Upper-division business courses taken in the freshman or sophomore year at four-year institutions may be accepted as “undistributed” credit subject to oral or written examinations for specific equivalency.

Upper-division business courses taken at two-year institutions may be accepted as “undistributed” credit that will count only as business electives.

No more than 94 credit hours may be accepted for transfer from a four-year institution. Course grades from other institutions are not transferred; only credit hours earned in a course are recorded. Evaluation of credit is completed after a student is admitted to the university.

2. **Transfer of Credit from Junior and Community Colleges**

No more than 60 credit hours earned at junior or community colleges may be applied to an Indiana University Kelley School of Business degree.

3. **Transfer of Credit from Other Indiana University Campuses**

Four-year degree programs in certain concentration areas may be completed at Indiana University East, Indiana University-Purdue University Fort Wayne, Indiana University Kokomo, Indiana University Northwest, Indiana University South Bend, Indiana University Southeast, and Indiana University-Purdue University Columbus, as well as at the Bloomington and Indianapolis campuses. Admission and degree requirements will vary among campuses.

Students wishing to transfer to the Kelley School of Business in Indianapolis are required to meet the same admission requirements to the school as do all other students, both internal and external, at the Indianapolis campus. Students who expect to graduate from IU's Kelley School of Business in Indianapolis must complete the last 30 credit hours of the degree program and one-half of their concentration requirements at the Indianapolis campus and complete an application to the school.

Ordinarily, such students must complete the Integrative Core (BUS F301, BUS M301, and BUS P301) on the Bloomington or Indianapolis campus. Transfer students who have completed all three courses of the Integrative Core before starting classes on the Indianapolis campus are required to enroll in BUS X390 The Integrative Experience (1 cr.) during their first semester of admission to the Kelley School of Business. A minimum grade of C- is required in the course. This course requirement applies to all students transferring credit for BUS F301, M301, or P301 from other institutions or another Indiana University campus. Students who are unclear about this requirement should see an academic advisor in the Kelley School of Business.

Grading System

Incomplete Courses A temporary grade of Incomplete (I) on the transcript indicates that the work completed is satisfactory but that the entire course has not been completed. A grade of I may be assigned only if the student is not in attendance during the last 25 percent of a semester or summer session and the instructor has reason to believe that the absence was beyond the student's control. Otherwise, the instructor shall assign a grade of F.

It is the instructor's responsibility to specify the work to be done to remove the Incomplete and the period

of time allowed for completion. However, it is the student's responsibility to contact the instructor to verify that all requirements have been completed. If the Incomplete is not removed within one calendar year of the date of the recording of the Incomplete grade, the registrar will automatically change the I to an F grade. The instructor may, however, require the Incomplete to be removed after a period that is less than one year. Upon satisfactory completion of the work within the time allowed, the Incomplete will be removed and the earned grade recorded. In special circumstances, the dean may authorize that a grade of I be changed to a grade of W (Withdrawn).

Students may not re-enroll in a course in which they have a grade of I.

Pass/Fail Option Business students may elect to take 3 credit hours each semester with a grade of P (Pass) or F (Fail), with a maximum of 6 credit hours each school year, including summer sessions. The election of this option must be exercised by the student within the first three weeks of the semester or equivalent time period in a summer session. Limitations on use of the Pass/Fail option are as follows: Kelley School of Business students may not take any business course Pass/Fail. Also, the Pass/Fail option cannot be used for courses that satisfy the general-education requirement or any course that would fulfill a concentration requirement. In short, the option can be used only for courses that are pure electives taken outside the Kelley School of Business. A grade of P is not counted in the cumulative grade point average, but a grade of F is included. A grade of P cannot be changed subsequently to a grade of A, B, C, or D.

Withdrawals A grade of W (Withdrawn) is given automatically on the date of withdrawal to the student who withdraws during the first seven weeks of a regular semester or during the first three weeks of a summer session.

After the automatic withdrawal deadline, instructors have the option of assigning a grade of W (if the student is passing on the date of withdrawal) or F (if the student is failing on the date of withdrawal).

Any student who wishes to withdraw from a business course in the final quarter of the semester (after the final drop date published in the *Schedule of Classes*) will be required to submit a petition describing the reason for the request. If the instructor of the course supports the student's request, he or she must sign this petition and a drop/add slip. The Appeals Committee will review these petitions. Approval for a student to withdraw with a grade of W will be granted only in cases of illness or emergency.

Effective spring 2000, students admitted to Kelley School of Business are permitted to withdraw from a maximum of five 300- and 400-level business courses. If students withdraw from more than five upper-division courses, they are not allowed to enroll in upper-division business courses during the subsequent fall or spring semester. Students will be placed on academic contract during the semester in which they are eligible to re-enroll in upper-division business courses. Following successful completion of the contract semester (no withdrawals from upper-division courses), students will be released from

academic contract unless they withdraw from another upper-division course.

In addition, effective fall 2001, students may withdraw from a maximum of 20 courses and cannot withdraw from a single course more than 3 times.

Graduation Requirements

Though the school makes every attempt to provide students with ample advising and counseling help, *students in the Kelley School of Business are responsible for planning their own programs and for meeting degree requirements.* It is their responsibility to fully understand and comply with all the provisions of this bulletin. Requests for deviation from department, program, or school requirements may be granted only by written approval from the respective chair, director, or dean, or their respective administrative representatives.

Credit Deadline All course work except work from the current semester must be completed and recorded on the degree candidate's Indiana University transcript at least one month prior to the date of graduation.

Credit Hours and GPA Requirements For students admitted or readmitted fall 2002 a minimum of 124 credit hours must be successfully completed in courses meeting the various requirements stated in this bulletin to earn the Bachelor of Science in Business degree. Of this number, at least 48 credit hours must be in business and economics courses and at least 62 credit hours must be in courses other than business and economics. A minimum cumulative GPA of 2.0 (C) is required for graduation. In addition, students must achieve a minimum 2.0 (C) grade point average in business courses, and a minimum 2.0 (C) grade point average in their concentration requirements to graduate from the Kelley School of Business. Students with outstanding cumulative GPAs may graduate with honors. (See "Academic Distinction" in the "Special Opportunities" section.)

Senior Residence Requirement Students who expect to receive the B.S. in Business degree from the Indiana University Kelley School of Business, Indianapolis, must complete the last 30 credit hours of work toward the degree program and one-half of their concentration requirements on the Indianapolis campus.

Permission to take up to 6 credit hours during the senior year at another institution or by correspondence may be requested by petitioning the Chairperson of Undergraduate Programs, Business/SPEA 3024, 801 W. Michigan Street, Indianapolis, IN 46202-5151; phone (317) 274-2147.

Degree Applications Candidates for the B.S. in Business degree must file a degree application with the Recorder's Office, Kelley School of Business, Business/SPEA Building 3024. Application deadlines are September 1 for December graduation and December 1 for May, June, or August graduation. Kelley School of Business transcripts may reflect from one to three concentrations or majors and zero to two minors.

Statute of Limitations Candidates for the B.S. in Business degree have the right to complete the degree requirements specified by the bulletin in effect at the time they entered Indiana University, as long as the required courses are available and no more than eight calendar years have elapsed since the date of entry. In the event that the required courses are not available or more than eight years have elapsed, students are required to meet the degree requirements currently in effect. Students who are unclear about this requirement should see a Kelley School of Business advisor.

Special Opportunities

Awards, Recognition, and Scholarships

Scholarships available through the Kelley School of Business are based on academic achievement and/or financial need. Eligible candidates must be certified as students in the Kelley School of Business. Ordinarily, a student transferring from another institution must complete at least one semester of study at IUPUI in order to be considered for a scholarship.

The following awards are made to IUPUI students in the Kelley School of Business: Ginny Marzke Memorial Scholarship; John W. Berry Memorial Scholarship; Chancellor's Scholar Award; Delta Sigma Pi Award; Financial Executives Institute Outstanding Finance and Accounting Awards; Irwin Katz Accounting Excellence Award; George S. Olive Scholarship; J. Dwight Peterson Key Award; Arthur W. Tuttle Scholarship; Outstanding Upperclass Scholarship Awards; Nelson/Modern Vending Scholarship; Hazel P. Chattaway Scholarship; Roger Jerman Scholarship; American United Life Scholarship; Bank One Outstanding Finance Student Scholarship; United Parcel Service Scholarship; Ralph L. Swingley Scholarship; Klapper Scholarship; and Transportation Awards. In addition, scholarships and awards are generally given to outstanding students in each concentration.

Academic Distinction Academic distinction for excellence in scholarship is awarded at Commencement to a limited number of students graduating with the Bachelor of Science in Business degree. The number so honored will not exceed 10 percent of the graduating class in the school for that year. Students whose grade point averages are in the highest 1 percent (approximately 3.9 GPA or higher) and who complete at least 60 credit hours at Indiana University graduate with "highest distinction"; those whose grade point averages are in the next highest 4 percent (approximately 3.75 to 3.89 GPA) and who complete at least 60 credit hours at Indiana University graduate "with high distinction"; and the remaining 5 percent (approximately 3.55 to 3.74 GPA) who complete at least 60 credit hours at Indiana University graduate "with distinction." The grade point averages cited are approximate and may vary slightly depending on class statistics. Graduates receiving these honors have them so noted on their diplomas and in the Commencement program and are eligible to wear cream and crimson fourragères at Commencement.

Dean's Honor List All undergraduate students in the Kelley School of Business who are taking at least 6 credit hours during a fall or spring semester and who have a semester grade point average of 3.5 or higher are placed on the Dean's Honor List. These honor students receive letters from the dean recognizing their meritorious efforts.

Business Foundations Certificate Program

This program is designed for students who want to become more generally educated about business, improve the conduct of their personal business affairs, and have a business foundation to aid them in their careers.

General requirements for the certificate program include: (1) admission to IUPUI; (2) completion of a minimum of 30 credit hours of college-level or university-level course work; (3) completion of approximately half of the required credit hours at IUPUI; (4) a minimum cumulative grade point average of 2.0 (C); (5) a minimum number of credit hours of business course work taken at Indiana University.

To obtain specific course requirements, see an advisor in the Kelley School of Business Undergraduate Office, 801 W. Michigan Street, Business/SPEA 3024, Indianapolis, IN 46202-5151; phone (317) 274-2147.

Honors Program

Timothy D. Bennett, *Director of Honors Program and Placement Operations*

The Kelley School of Business's highly distinctive Honors Program is designed to enrich the academic experience of selected students.

The program enables the Kelley School of Business to offer the superior student a means to obtain skills and insights not available in the general business program. In this way, its educational offerings can reflect differences in individual student capabilities and motivation. It also enables the school to encourage students who display the promise of high achievement in the field of business to return something to society once they have met their goals. Contact the honors director for information: (317) 274-5693, tbennet@iupui.edu.

Internships

Russell C. Vertner, *Director of Assessment and Student Professional Experiences*

Students are encouraged to gain work experience to enhance the academic knowledge acquired in the business degree program.

International Internships For information about overseas internships, contact the Office of International Affairs, Union Building 207; phone (317) 274-7000.

Professional Practice Program The Professional Practice Program, which administers the internship program of the Kelley School of Business, offers supervised work experience. The program places undergraduates who are in advanced stages of their degree programs in paid internships for one semester.

The following policies govern the "for credit" option in the Professional Practice Program's operations in the Kelley School of Business:

1. A student may receive a maximum of 6 credit hours, 3 credits per internship, in the Kelley School of Business for participation in Professional Practice Program internships.
2. Internships may be part-time or full-time employment assignments.
3. The student must have completed the Integrative Core.
4. Each internship position must be approved by the department of the Kelley School of Business offering the internship, and this approval must be established prior to the time applications from students are solicited. Individual departments may have specific course and GPA requirements.
5. At the conclusion of an internship, the student intern is required to submit a substantial written report to the department in the Kelley School of Business from which internship credit is to be received. The written report is to describe the nature of the problems, objectives, organizational structure, and operations of the functional area in the organization in which the internship was taken. A grade of S or F will be assigned by faculty for internships in all program areas except in the Department of Accounting, where the internship will be graded using the full range of grades.

For additional information and applications, contact the director at (317) 274-3492, vertner@iupui.edu.

Minor in Business

A minor in business has been established with a number of departments in the Schools of Engineering and Technology, Liberal Arts, Science, Journalism, and Health, Physical Education, and Recreation. Students are required to meet course prerequisites and entrance requirements with a GPA of 2.0 or better. These include completion of the following eight courses or equivalents with a sufficient grade point average to ensure admission into the business Integrative Core (described below), which are taken as a unit:

BUS A200 Foundations of Accounting
 BUS L203 Commercial Law I
 BUS K201 The Computer in Business
 ECON E201 Introduction to Microeconomics
 ECON E202 Introduction to Macroeconomics
 ECON E270 Introduction to Statistical Theory in Economics
 MATH M118 Finite Mathematics
 MATH M119 Brief Survey of Calculus I

BUS K201 The Computer in Business, or its equivalent, must be completed with a minimum grade of C prior to starting the Integrative Core. Business minors are required to take the Integrative Core, which is 9 credit hours taken together as a single educational unit (BUS F301 Financial Management, M301 Introduction to Marketing Management, P301 Operations Management). Note that to take these three core classes, business minors must apply for a place in them. Application deadlines are March 1 for the summer and fall semesters, and October 1 for the spring semester. Applications are available in the undergraduate office, Business/SPEA Building 3024; call (317) 274-2147 if you have questions.

In addition to the 11 required courses listed above, BUS X204 Business Communications (3 cr.) and BUS Z302 Managing and Behavior in Organizations (3 cr.) are recommended. For all courses listed above, the Kelley School of Business will impose essentially the same standards on students minoring in business as on business majors.

The above minor requires 15 credit hours outside of business and 18 credit hours of business courses, one-half of which must be taken on the IUPUI campus, to comprise the 33 credit hours required for the minor. Students may consult with Kelley School of Business advisors, but are urged to seek academic advising from their major department to ensure that program planning is accurate.

Outside Minors for Business Students

Business students may complete the requirements for a minor through the other schools and departments that offer approved minors, which currently include the Schools of Liberal Arts, Science, and Journalism. The department offering the minor will define the requirements for completing the minor. Students will be required to follow the departmental rules regarding grades, IUPUI credit hours, and course requirements. The minor will appear on the student's official transcript. No more than two minors may appear on the transcript.

Information concerning approved minors is available in the undergraduate office, Business/SPEA Building 3024. Students must consult with an advisor in the department offering the minor.

Overseas Study Programs

The Kelley School of Business offers students the opportunity to study overseas for one semester so that they may gain exposure to other cultures and to international business and economic institutions. A study tour is incorporated into the program, enabling students to visit government and political institutions. Multinational firms are visited throughout the semester.

Qualified students may participate in programs in France, the Netherlands, Finland, Singapore, Chile, Germany, Japan, and Australia, among others. Additional information is available in the undergraduate office, Business/SPEA Building 3024.

The overseas study program will fulfill the international dimension requirement. (See the "Undergraduate Curriculum" section of this bulletin.)

Second Bachelor's Degree

Normally, the holder of a bachelor's degree who wishes to pursue further education is encouraged to seek admission to a graduate program. For example, students interested in taking the additional courses necessary to sit for the C.P.A. exam are encouraged to apply to the Masters of Professional Accountancy Program. In certain cases, however, the undergraduate program of the Kelley School of Business may admit students who have already earned a bachelor's degree in an area *other than business*. In such cases, candidates must earn at least 30 additional credit hours in residence and meet the requirements of the Kelley School of Business and of their selected concentrations. The requirements are similar to those for the bachelor's degree in business (see following pages). The candidate will, of course,

be exempt from any requirements already fulfilled in acquiring the first bachelor's degree.

Students who have already earned a bachelor's degree in business **are not eligible** to earn a second bachelor's degree in business.

Student Organizations

The faculty of the Kelley School of Business recognizes that student organizations contribute greatly to the programs of the school. Some of these are honorary organizations facilitating recognition of outstanding performance. Others enable students to develop their interests in various fields through extracurricular programs. More information about the organizations and names of individuals to contact is available in the undergraduate office, Business/SPEA Building 3024; phone (317) 274-2147.

Accounting Club The Accounting Club maintains a close relationship with IUPUI accounting students, alumni, accounting faculty, and practicing accountants. Members provide numerous services to the community and university, including free help with income tax issues, tutoring in accounting subjects, auditing of student organizations, and arranging scholarships for accounting students. Members meet for discussions and panel presentations and to hear speakers from prominent businesses and accounting firms. Membership is open to all students.

Beta Gamma Sigma Undergraduate membership in this national scholastic honorary business fraternity is restricted to no more than the upper 10 percent of the senior class and the upper 5 percent of the junior class. Graduate students pursuing the M.B.A. degree also may be invited to participate. All successful doctoral degree candidates are eligible for membership if not previously admitted.

Delta Sigma Pi This national professional fraternity for students enrolled in schools of business fosters the study of business in universities, encourages scholarship, promotes closer affiliation between the business world and business students, and furthers the development of high standards of business ethics. Public outreach via guest speakers, corporate tours, and volunteer community service is an important part of Delta Sigma Pi's activities.

Finance Club The Finance Club is an organization of undergraduate students interested in careers in finance. The program includes meetings with prominent people in banking, brokerage, investments, and other phases of finance, as well as trips to financial institutions in the larger cities.

Honors Business Association The Honors Business Association's purpose is to promote and aid honors students.

International Business Organization (IBO) Open to all students, the organization is designed to address the international aspects of business enterprise. The IBO sponsors company visits, serves as a liaison with other international groups, and distributes information on international opportunities. Representatives from multinational firms are frequent guests.

Marketing Club All students concentrating in the field of marketing are eligible to join this organization, which is affiliated with the American Marketing Association. Its objectives are to further the individual

welfare of its members; to acquaint them with practical situations in the marketing field; to foster marketing research in the fields of advertising, retailing, and sales; and to promote fellowship among the marketing students and the faculty. Outside speakers frequently address the club.

Multicultural Students in Business Membership is open to all IUPUI students. The purpose of the organization is to provide a support structure for business students with common concerns and objectives. Professionals from the corporate sector are frequent guest speakers.

National Association of Black Accountants (NABA) Membership is open to all IUPUI students but has the primary purpose of developing, encouraging, and serving as a resource for greater participation of African Americans and other minority groups in the accounting profession. The goals of the association include: (1) promoting and developing the professional skills of members; (2) encouraging and assisting minority students in entering the accounting profession; (3) providing opportunities for members to fulfill their civic responsibilities; (4) ensuring long-term financial stability for and providing adequate resources to implement chapter, regional, and national programs; and (5) representing the interests of current and prospective minority accounting professionals.

Women in Business Membership is open to all women at IUPUI, both undergraduate and graduate, who have an interest in exploring business career possibilities and preparing for entry into the business world.

Undergraduate Curriculum

Degree Requirements

To be awarded the Bachelor of Science in Business degree, students must meet the following requirements. (Also see "Undergraduate Program" in this section.)

1. Complete a minimum of 124 credit hours. Of this number, at least 48 credit hours must be in business and economics courses; a minimum of 62 credit hours must be in courses other than business and economics. A maximum of 9 credit hours of economics will be counted as general education credits in meeting this requirement.
2. Complete the specific degree requirements of the Kelley School of Business as listed below.
3. Complete the last 30 credit hours of the degree program at IUPUI.
4. Complete a minimum of 50 percent of the concentration requirements on the IUPUI campus. This requirement applies to all courses listed for each curricular concentration.

Students in the Kelley School of Business are responsible for understanding and for meeting the degree requirements. Approval for any exceptions or modifications in the degree requirements must be *in writing* and may be granted only by the dean of the Kelley School of Business, the undergraduate program chairperson, the chairperson of the student's concentration, or the chairperson's administrative representative.

Students who would like assistance in planning an academic program or clarification of degree requirements may consult an academic advisor in the Kelley School of Business. See “Useful Phone Numbers” at the beginning of this section.

The undergraduate curriculum in the Kelley School of Business consists essentially of three parts:

(1) general-education courses, (2) basic business and economics courses, and (3) business concentrations. (A key to relevant course codes may be found at the beginning of this bulletin.)

General-Education Requirements (Minimum of 62 cr.)

I. Foundation Courses (12 cr.)¹

ENG W131 Elementary Composition I (3 cr.)²

COMM R110 Fundamentals of Speech Communication (3 cr.)²

MATH M118 Finite Mathematics (3 cr.)

MATH M119 Brief Survey of Calculus (3 cr.)

II. Humanities (12 cr.)

HIST H105 American History I (3 cr.)

or

HIST H106 American History II (3 cr.)

or

Any history course with an “A” prefix except A361 and A363.

The remaining 9 credit hours may be completed by taking courses as specified below:

Art—Courses with an “H” prefix (art history) that are at the 200 level or above

Classical Studies—(except C209)

Communications—T130, T337, T338

Comparative literature—Courses with a “C” prefix that are at the 200 level or above

English—Courses with an “L” prefix (English literature) that are at the 200 level or above

History

Philosophy

Religious Studies

III. Social Sciences (6 cr.)

The social science requirement may be satisfied by selecting 6 credit hours from any of the following departments:

Anthropology

Geography

Political Science

Psychology (except practica)

Sociology

IV. Science (5-6 cr.)

One or more courses selected from the following departments:

Astronomy

Biology

Chemistry

Geology

Physics

V. General-Education Electives

General-education courses are chosen from throughout the university, excluding Kelley School of Business courses and Department of Economics courses. The number of credit hours required in this category depends upon the manner in which the above requirements are met. At least 62 credit hours in general-education courses are required.

Note: The following courses do not count for any credit toward any degree program in the Kelley School of Business: ENG W001 Fundamentals of English, MATH M010 Pre-Algebra, MATH 001 Introduction to Algebra, MATH 110 Fundamentals of Algebra, and MATH 111 Algebra. As a general rule, remedial courses do not count for any credit toward any degree program in the Kelley School of Business. Consult an advisor for specific information.

VI. International Dimension Requirements

The international dimension can be fulfilled in any one of the following four ways.

- A. Language: A minimum of 6 credit hours in courses at the 200 level or above in a language other than English.
- B. International business and economics: Two courses selected from the following list: BUS D301 The International Business Environment; BUS D302 International Business: Operation of International Enterprises; BUS F494 International Financial Management; BUS L411 International Law; BUS M401 International Marketing; ECON E303 International Economics; ECON E325 Comparative Economic Systems; ECON E430 Introduction to International Economics; ECON E495 Economic Development.
- C. Participation in approved overseas study programs: earning at least 6 credit hours through participation in any approved overseas program of Indiana University will fulfill this requirement. Participation in non-IU programs may be possible, but the student must have prior approval of a Kelley School of Business advisor.
- D. International focus: selection of two courses from a list of international courses offered in various IUPUI departments, such as history, political science, and geography. See a Kelley School of Business undergraduate program advisor for a current list of approved international courses.

Kelley School of Business students from other countries will generally be considered to have fulfilled this requirement. To apply for this waiver, contact the Undergraduate Program Office, Business/SPEA Building 3024.

Basic Business and Economics Requirements

Freshman and Sophomore Years¹

BUS X100 Business Administration: Introduction (3 cr.)²

BUS X103 Business Learning Community (1 cr.)²

BUS A100 Basic Accounting Skills (1 cr.)

BUS A201 Introduction to Financial Accounting (3 cr.)

BUS A202 Introduction to Managerial Accounting (3 cr.)

BUS K201 The Computer in Business (3 cr.)²

BUS X204 Business Communications (3 cr.)²

BUS L203 Commercial Law I (3 cr.)

ECON E201 Introduction to Microeconomics (3 cr.)

ECON E202 Introduction to Macroeconomics (3 cr.)

ECON E270 Introduction to Statistical Theory in Economics (3 cr.)

Junior Year

BUS F301 Financial Management (3 cr.)³

BUS M301 Introduction to Marketing Management (3 cr.)³

BUS P301 Operations Management (3 cr.)³

BUS Z302 Managing and Behavior in Organizations (3 cr.)

BUS X420 Business Career Planning and Placement (2 cr.)

Senior Year

BUS J401 Administrative Policy (3 cr.)

For information about Kelley School of Business departments and areas of study, see “Departments and Concentrations” and “Course Descriptions.”

¹ Equivalent or approved substitute courses may be used to fulfill these course requirements. Courses may be repeated only once. (See “Admission Requirements.”)

² Must be completed with a minimum grade of C prior to admission to the Integrative Core (BUS F301, M301, and P301).

¹ Equivalent or approved substitute courses may be used to fulfill these course requirements. Courses may be repeated only once. (See “Admission Requirements.”)

² Must be completed with a minimum grade of C prior to admission to the Integrative Core (BUS F301, M301, P301).

³ F301, M301, and P301 must be taken together as the Integrative Core. BUS X390 Integrative Experience (1 cr.) is required of transfer students who have completed two or more courses of the Integrative Core. All prerequisites must be completed prior to a student registering for core. See an advisor if you have any questions.

Typical Program for Full-Time Students

A typical Kelley School of Business program for a full-time Indianapolis student (minimum total of 124 credit hours)² would be as follows:

SEMESTER I	First Year	Second Year	Third Year	Fourth Year
	BUS X100 (3 cr.) ¹	BUS A201 (3 cr.)	BUS F301 ³ (3 cr.)	International dimension ²
	BUS X103 (1 cr.) ¹	BUS K201 (3 cr.) ¹	BUS M301 ³ (3 cr.)	(3 cr.)
	ENG W131 (3 cr.) ¹	BUS L203 (3 cr.)	BUS P301 ³ (3 cr.)	Concentration
	MATH M118 (3 cr.)	ECON E201 (3 cr.)	Humanities ² (3 cr.)	requirements
	American history (3 cr.)	Humanities ² (3 cr.)	Electives ^{2,4} (3 cr.)	or electives ² (14 cr.)
	Social science ² (3 cr.)	Electives ^{2,4} or Science (1-3 cr.)		
SEMESTER II	BUS A100 (1 cr.)	BUS A202 (3 cr.)	BUS X420 (2 cr.)	BUS J401 (3 cr.)
	BUS X204 (3 cr.) ¹	ECON E202 (3 cr.)	BUS Z302 (3 cr.)	Concentration
	COMM R110 (3 cr.)	ECON E270 (3 cr.)	International dimension ¹	requirements
	MATH M119 (3 cr.)	Humanities ² (3 cr.)	(3 cr.)	or electives ² (12 cr.)
	Science (3-5 cr.)	Electives ² (3-5 cr.)	Concentration	
	Social science ² (3 cr.)		requirements or electives ² (7 cr.)	
Total Credits	32-34 credits	31-35 credits	30 credits	32 credits

¹ Must be completed with a minimum grade of C prior to admission to the Integrative Core (BUS F301, M301, P301).

² See "General-Education Requirements," "Basic Business and Economics Courses," and "Departments and Concentrations."

³ The Integrative Core courses must be taken together. All prerequisites must be completed prior to registering for core.

⁴ Electives should be chosen to complete the science requirement if the first course selected in semester II was worth fewer than 5 credit hours.

IUPU Columbus

Columbus Students Transferring to IUPUI

Students who matriculate to Indiana University-Purdue University Columbus (IUPUC) and who wish to earn a Kelley School of Business degree must meet senior residency requirements and complete the last 30 credit hours on the IUPUI campus. Students cannot take any of the final course work in Columbus to receive the Kelley School of Business degree. The eight-year statute of limitations (see "Graduation Requirements") mandates that students complete their degree requirements within eight years in order to earn a Kelley degree. This policy does not apply to students who matriculated prior to the fall of 2001.

IUPUC students who wish to earn a Kelley degree must apply for admission to the Kelley School of Business in Indianapolis by the stated deadlines and meet all Indianapolis program requirements. Course work may be taken at either campus for students who matriculated to IUPUC prior to the fall of 2001. Students also must apply to graduate from the Kelley School of Business in Indianapolis.

Students currently admitted to degree programs at Indiana University campuses other than IUPUI, but who plan to attend IUPU Columbus on a permanent basis, must request that a permanent Intercampus Transfer be sent to IUPU Columbus from their current campus.

Students who plan to attend IUPU Columbus for specific courses and return to a campus other than IUPUI to complete their program should request that a temporary Intercampus Transfer be sent to IUPU Columbus. This transfer should specify the length of

time to be spent at IUPU Columbus or list the course(s) that the student is authorized to complete.

Calendar and Schedule of Classes Final schedules and calendars pertaining to IUPU Columbus are available at IUPU Columbus. Registration dates at IUPU Columbus generally do not correspond with those at IUPUI.

For further information on business study at IUPU Columbus, contact:

IUPU Columbus
4601 Central Avenue
Columbus, IN 47203-1769
Phone: (812) 372-8266

Departments and Concentrations

In addition to the general-education and general business curricula discussed previously, students majoring in business also must select an area of concentration within the business program. The areas of concentration, along with the curriculum for working toward that concentration, are presented by department in this section and are summarized below.

Accounting
Computer Information Systems
Finance
Human Resource Management
International Studies¹

¹ May be selected as a second concentration only.

Management
Management of Nonprofit Organizations
Marketing
Marketing-Distribution Management

Students with special interests, such as an interest in a specific industry, may seek permission from their faculty advisors to plan programs that vary somewhat from those outlined in this section.

Concentration requirements are subject to change during the two years covered by this bulletin. Students are expected to stay informed of concentration changes by seeing a business academic advisor on a regular basis.

Department of Accounting and Information Systems

Accounting Concentration

The accounting curriculum prepares students for careers in auditing, corporate accounting and management consulting, governmental and nonprofit organizations, and taxation. In addition, it equips the prospective business executive with tools for intelligent analysis, planning, control, and decision making. The accounting curriculum also provides excellent background for the student who wants to pursue graduate work in business, public administration, or law.

Accounting graduates who meet requirements of the State Board of Public Accountancy of Indiana are eligible to sit for the Uniform C.P.A. Examination in

Indiana. Most accounting graduates will need to engage in further study to be eligible to sit for the exam. Those who wish to engage in public accounting practice in Indiana as certified public accountants should familiarize themselves with the rules and regulations issued by the Indiana State Board of Accountancy, Indiana Professional Licensing Agency, 302 W. Washington Street, Rm. E034, Indianapolis, IN 46204-2724; phone (317) 232-2980. Students planning practice outside Indiana should consult the C.P.A. board in their state of residence. Call 1-800-CPA-EXAM for additional information.

Internships in business or government are available on a selective basis during the fall, spring, or summer. Fall is the ideal time to apply for an accounting internship, since the majority of public accounting internships are spring semester positions. For further information about internships, contact Career and Employment Services, Business/SPEA Building 2010; phone (317) 274-2554.

Concentration Requirements

Freshman Year: BUS A100

Sophomore Year: BUS A201, A202

Junior and Senior Years:

- BUS A311, A312, A325, A328, A424, S302, and X302
- Two accounting electives from the following: A335, A337, A339, A380, A422, A437, A439, A490 or other approved accounting or systems course.
- Nonaccounting concentration (9 cr.): Students must use these hours to build a three-course sequence, a concentration that creates an expertise normally in some nonaccounting business area (e.g., computer information systems or finance). However, a concentration that includes non-business courses (e.g., courses from Computer Technology) may be acceptable. This concentration might be obtained in a number of ways. For example, students might construct a three-course sequence in a particular area such as finance, computer information systems, or something similar. Information about *preapproved* concentrations may be obtained from the Kelley School of Business advisors. Students may construct their own concentration, but all proposed concentrations must have approval from an accounting or systems faculty member. Students also are encouraged to use this flexibility to double major.

NOTE: Most states (including Indiana) require that those accounting professionals who wish to be licensed as certified public accountants must have completed 150 credit hours of education with an accounting concentration. Students must choose among three alternatives. Students who plan to forego C.P.A. licensure may begin their careers after four years with a bachelor's degree. Students interested in licensure may either continue for a fifth year to earn a master's degree (fulfilling the 150-hour requirement) or enter the workforce after four years (with the bachelor's degree) and continue to work toward the master's as part-time or returning students.

The Department of Accounting has created a Master of Professional Accountancy Program for students wishing to pursue licensure.

Computer Information Systems Concentration

Information has joined land, labor, capital, and materials as a central resource for all business managers. Thus, although management specialists with an in-depth education in information systems are needed, every manager is called on to utilize information for business advantage.

Information systems include computers, a wide variety of programming languages, telecommunications, mathematical modeling and computer software for data analysis, factory and office automation, robotics, and expert systems. Managers need to know how and when to apply these technologies, how organizations can acquire and manage information systems that use these technologies, and how businesses should organize themselves to take advantage of opportunities through these technologies.

Students from all areas of business can benefit from understanding information systems. For example, since accounting systems are usually computerized, cost accountants, auditors, and corporate finance managers must be able to use and analyze information systems. General managers need to understand information systems as organizational innovations that must be adopted and implemented simultaneously with changes in organizational designs, strategies, and behaviors. Market researchers must be able to extract data from large databases and analyze them using sophisticated decision and business modeling techniques. Manufacturing and engineering managers must understand the linkages between technical and business computing applications. The undergraduate curriculum offers three different tracks in this concentration.

Concentration Requirements

Junior and Senior Years: All Options
BUS S302, S305, S307, and S310

CSCI N-series Option Only

1. CSCI N305 and N331
2. Choose two from the following list:
 - BUS S490
 - CSCI N241, N311, N335, N341, N345, N355

CSCI Programming Language Option Only

1. CSCI 230, 265, and 452
2. Choose one from the following list:
 - BUS S490
 - CSCI N241, N311, N331, N335, N341, N345, N355

Database Option Only

CSCI 230, 265, 340, 362, and 443

Note: This is a rigid concentration track due to programming prerequisites. There are no concentration electives.

Department of Business Law

The business law department's course offerings acquaint students with what is probably the most important external factor affecting business operations: the law. The courses provide students with an understanding of the nature, functions, and practical operations of the legal system. They also provide considerable information about the most important legal rules restricting—and facilitating—business operations. Finally, they help develop both critical reasoning skills and an appreciation of the social, ethical, and economic forces that help make the law what it is.

Although a concentration in business law is not currently available on the Indianapolis campus, courses in this department may be elected to enhance most other business concentrations.

Department of Finance

The finance undergraduate curriculum provides for a high degree of flexibility while offering the basic preparation needed to deal with the complexities of the modern financial environment.

All students in the concentration must take a common core of three courses: BUS A311, F305, and F420. These three courses provide a basic grounding in financial accounting systems, the capital and money markets, and corporate financial decision making. An understanding of these areas is necessary for someone who is planning a career in finance.

Finance Concentration

The undergraduate curriculum in this concentration is designed to provide familiarity with the instruments and institutions of finance and with a financial approach for structuring and analyzing management decisions.

Course offerings are designed to integrate various aspects of the environment, such as the state of the economy, taxes, and legal considerations, into the decision-making process.

Study in finance, along with appropriate electives, provides academic preparation for careers in corporate financial management; commercial banking, savings and credit institutions; investment analysis; and the selling of financial instruments and services.

Candidates are encouraged to select electives in accordance with career objectives.

Concentration Requirements

Junior and Senior Years:

- A. Finance core requirements: BUS A311, F305, F420
- B. Select two of the following:
 - BUS F402, F446, F494
- C. Select three of the following:
 - BUS A312, BUS A325, BUS A328, ECON E305, ECON E470, BUS R305, BUS R440, BUS R443

Note: Double majors in finance and accounting may take any accounting course other than A100, A201, and A202 as a Section C elective.

Department of Management

The Department of Management encompasses the areas of management, human resource management, organizational behavior, business policy, management of nonprofit organizations, entrepreneurship, and international business. The curriculum is designed to offer students either a broad-based background preparing them for entrance into managerial positions or specialized training in an area of concentration.

At the undergraduate level, the department offers a major concentration in management, nonprofit management, or human resource management, as well as the option to pursue a second concentration in international studies.

Management Concentration

Society recognizes the importance of understanding both management itself and the complex nature of the organizations—in business, government, hospitals, and universities—in which managers operate. The faculty is concerned with improving this understanding through the study of individual and group behavior, organizational theory, and human resource development.

The undergraduate courses offered in this concentration are concerned not only with the broad aspects of management and organization, but also with developing skills for dealing with problems of motivation, organization design, and the increasingly complex problems of human resource allocations in our interdependent society.

This concentration provides the flexibility to accommodate students whose interests include preparation for corporate management training positions, application of behavioral science to management, personnel function in both line and staff capacities, and managing the small business.

Concentration Requirements

Junior and Senior Years:

1. BUS W430 and Z440
2. Four of the following (a minimum of two must be business courses):
 - BUS D301, D302, J404, W311, W406, W408, W494, Z404, Z441, Z444;
 - ECON E304;
 - OLS 378;
 - POLS Y302;
 - PSY B370, B374, B424;
 - SOC R317, R478;
 - SPEA V432;
 - Any 400-level Kelley School of Business course approved by a business advisor.

Entrepreneurship Emphasis

Within the management concentration there is a special emphasis in entrepreneurship and small business.

The image of business in the United States is often one of mammoth national and multinational corporations. Too often the role of the entrepreneur and the importance of small businesses in the economy are overlooked. A vital cornerstone in

sustaining the free enterprise system is the continual birth of new enterprises and the identification, encouragement, and nurturing of entrepreneurial aspirations.

The Indiana University Kelley School of Business, recognizing the contributions of entrepreneurs and the interest shown by students in creating and entering small businesses, has developed an entrepreneurship and small business emphasis within the management concentration. This emphasis focuses the requirements of an individual concentrating in management toward small business.

Students interested in the entrepreneurship emphasis may satisfy the requirements by taking BUS W311, BUS W406, and an approved elective from the list of management concentration electives. (Note: BUS W490 requires the consent of the instructor and the department chairperson.)

Management of Nonprofit Organizations Concentration

For students interested in either the public or private sector, this concentration responds to the need for individuals with broad backgrounds in business to fill managerial positions in nonprofit institutions. These nonprofits include such diverse institutions as social service agencies, museums, hospitals, churches, educational bodies, and arts and cultural agencies. As government funding has tightened, many of these nonprofits have begun commercial activities in order to diversify their revenue bases. Students in this area will receive instruction in fundraising, appreciation of the arts, volunteer programs, and general philanthropic studies. Students who meet these requirements and apply to the Kelley School of Business and the School of Public and Environmental Affairs will earn **both** a B.S. degree in Business and a Certificate in Non-Profit Management.

Concentration Requirements

Junior and Senior Years:

1. BUS A335, W430, J404, Z440, W480
2. SPEA V221, V362
3. One of the following
 - SPEA E162, H316, H320
 - POLS Y326
 - PSY B310
 - SOC R335

Human Resource Management Concentration

This program is designed for students whose career objectives lie in the field of personnel management. From its early beginnings as a staff function involving the maintenance of records and the administration of benefit programs, personnel administration has grown and expanded to encompass the total development and deployment of human resources in organizations. While company titles may vary from vice president of industrial relations to vice president for organization planning and development, there are few firms of any size or consequence today that do not have a human resource management specialist reporting directly to the company's highest level. This practice reflects the awareness that the people who work in an organization are its greatest asset.

For this reason, the curriculum in human resource management is designed to acquaint the student with modern personnel management in its broadest sense.

Included are both the traditional areas of personnel administration and labor relations (such as employment, management development, wage and salary administration, organizational planning, and contract negotiation) and developments in the behavioral sciences with implications for a complete human resource management program.

The objectives at the undergraduate level are to provide students with the broad spectrum of knowledge they need for a career in organizational leadership; to prepare them for a career in human resource management; and to encourage and develop interest in further study and research in this area.

Concentration Requirements

Junior and Senior Years:

1. BUS Z440, Z441, Z443, and Z445
2. Two of the following:
 - BUS S302, W430, Z404, Z444, Z480
 - OLS 331

International Studies Concentration

In response to new and dynamic patterns of international business, American business firms have progressed far beyond the comparatively simple stage of import-export operations. Many companies are becoming multinational, with production units in numerous foreign countries. Private enterprise in the United States has become more intimately concerned with the economic, political, and social trends of foreign nations. The Kelley School of Business has recognized these developments in its global business programs.

All students may elect two courses dealing with the general problems involved in international business: BUS D301 and D302. They also may participate in overseas programs, which offer students an opportunity to see firsthand the problems treated in the course of study, as well as to enhance their language facility.

Students who wish to continue studies in the international area may choose, as a second concentration, the international studies concentration (ISC).

1. The ISC is an option available only to students admitted to the Kelley School of Business.
2. The ISC is a second concentration available to Kelley School of Business students. It may not be listed as a first concentration.
3. The ISC consists of 9 credit hours of course work taken in addition to the international dimension requirement. These 9 credits cannot be selected from the same option used for the international dimension requirement. (See the "General-Education Requirements" section of this bulletin.)

See a business advisor to discuss the possible combinations for fulfilling this concentration's requirements.

Department of Marketing

Marketing Concentration

The study of marketing concerns all activities related to the marketing and distribution of goods and

services from producers to consumers. Areas of study include customer behavior, the development of product offerings to meet consumer needs, pricing policies, institutions and channels of distribution (including retailers and wholesalers), advertising, selling, sales promotion, research, and the management of marketing to provide for profitable and expanding businesses.

The marketing curriculum endeavors to provide the business community with broadly trained men and women who can approach problems with a clear understanding both of marketing and of the interrelationships between marketing and other functions of the firm. Students planning careers in marketing management, advertising, sales, sales management, retailing, wholesaling, marketing research, or distribution normally major in marketing and then may pursue within the curriculum a modest degree of specialization in the area of their vocational interest.

Concentration Requirements

Junior Year: BUS M303

Junior and Senior Years:

Select at least one course from each of the following areas:

1. Buyer behavior: BUS M405 or M407
2. Channel management: BUS M402 or M419
3. Promotion management: BUS M415 or M426
4. Logistics management: BUS M411 or M412

Senior Year: BUS M450

Marketing-Distribution Management Concentration

The undergraduate program in distribution management prepares students for careers in physical distribution management and transportation. The curriculum emphasizes the role of distribution and transportation in making goods available in the world marketplace and to the nation in a timely and economical fashion. A student completing the distribution management program is qualified for work in corporate distribution management; private carrier management; warehousing; and transportation carrier management in the railroad, motor carrier, airline, or related fields. The courses combine theory, principles, concepts, and practice involving marketing, distribution channels, rate negotiations and rate making, transportation regulation, transportation economics and public policy, customer service standards, and related subjects.

Concentration requirements

Junior Year: BUS M303

Junior and Senior Years:

1. BUS M411 and M412
2. Two of the following: BUS M402, M407, M426, M450

Undergraduate Courses

The courses listed in this bulletin represent the complete undergraduate offerings of departments and programs of the Kelley School of Business on the Indianapolis campus.

The number of credit hours given to a course is indicated in parentheses following the course title.

The abbreviation "P" refers to course prerequisites; the abbreviation "C" refers to course corequisites.

Accounting and Information Systems

Note: Senior standing and Integrative Core are prerequisites for all 400-level Kelley School of Business courses.

A100 Basic Accounting Skills (1 cr.) The course covers the process of recording economic events that underlie financial statements. The basics of generally accepted accounting principles are introduced as they affect financial statements. The fundamental aspects of managerial accounting are related to planning, controlling, and decision making in business organizations. Different cost definitions are developed and cost-volume-profit analysis is introduced as an important financial planning and control skill.

A200 Foundations of Accounting (Nonmajors) (3 cr.) P: sophomore standing. The course addresses the role of accounting in society and business, with a special emphasis on fundamental concepts and the basic design of accounting systems. This course is intended for non-business majors who are interested in learning about how accounting affects their lives and businesses. Credit not given for both A200 and either A201 or A202.

A201 Introduction to Financial Accounting (3 cr.) P: A100; sophomore standing. Provides balanced coverage of the mechanics, measurement theory, and economic context of financial accounting. Strikes a balance between a preparer's and a user's orientation, emphasizing that students must understand both how transactions lead to financial statements (preparer's orientation) as well as how one can infer transactions given a set of financial statements (user's orientation). Relies on current real-world examples taken from the popular business press. The first part of the course introduces students to the financial accounting environment, financial statements, the accounting cycle, and the theoretical framework of accounting measurement. The second part of the course covers the elements of financial statements, emphasizing mechanics, measurement theory, and the economic environment. Students cannot receive credit for both A201 and A200.

A202 Introduction to Managerial Accounting (3 cr.) P: A100; sophomore standing. The course covers the concepts and issues associated with the accounting and the management of business. Particular emphasis is given to understanding the role of accounting in product costing, costing for quality,

cost-justifying investment decisions, and performance evaluation and control of human behavior. Credit not given for both A202 and A200.

A311 Intermediate Accounting I (3 cr.) P: A201, A202. Provides students with a thorough understanding of the theoretical foundations underlying financial reporting, revenue recognition, and the matching of expenses; financial statement presentation; and accounting for assets. The course's primary objective is to give students the tools necessary to understand and execute appropriate accounting procedures. Another goal is to help students understand the process through which accounting standards are determined and to evaluate the outcomes of that process from the perspectives of managers, shareholders, auditors, and others. Students will learn to assess competing accounting theories and methods from multiple perspectives.

A312 Intermediate Accounting II (3 cr.) P: A311. Provides students with a thorough understanding of accounting for long-term liabilities and debt investment, stockholders' equity, and preparation of cash flow statements. The course's first objective is to give students the tools necessary to understand and execute appropriate accounting procedures. The course's second objective is to help students understand the process through which accounting standards are determined and to evaluate the outcomes of that process from the perspectives of managers, shareholders, auditors, and others. Students will learn to assess competing accounting theories and methods from multiple perspectives.

A325 Cost Accounting (3 cr.) P: A201, A202. Conceptual and procedural aspects of management and cost accounting. Product costing, cost control over projects and products, decision making, profit planning, quantitative modeling, activity-based management, and computer applications.

A328 Introduction to Taxation (3 cr.) P: A201, A202. C: X302. This course examines the fundamentals of federal income taxation. Primary emphasis is on a basic understanding and awareness of the tax law as it applies to individuals but includes an overview of the taxation of corporations, partnerships, and estates and trusts. The course introduces students to tax research and the various sources of tax law, including the Internal Revenue Code, regulations, administrative pronouncements, and case law.

A335 Fund Accounting (3 cr.) P: A201, A202. Financial management and accounting for non-profit-seeking entities such as municipal and federal governments, schools, and hospitals.

A337 Computer-Based Accounting Systems (3 cr.) P: A311, S302. Impact of modern computer systems on analysis and design of accounting information systems. Discussion of tools of systems analysis, computer-based systems, and internal controls and applications. Focus on microcomputer use.

A339 Advanced Income Tax (3 cr.) P: A328. Advanced aspects of the income taxation of corporations, partnerships, and S-corporations.

A380 Professional Practice in Accounting (1-3 cr.) P: F301, M301, P301; junior or senior standing in major area and consent of undergraduate program chairperson. Application filed through the coordinator of internships. Students receive work experience in cooperating firm or agencies. Comprehensive written report required.

A422 Advanced Financial Accounting (3 cr.) P: A312. Generally accepted accounting principles as applied to partnerships, business combinations, branches, foreign operations, and nonprofits. Particular emphasis on consolidated financial statements.

A424 Auditing (3 cr.) P: A312. Objectives of this course are to provide students with an understanding of (1) the auditing environment and professional ethics, (2) audit reports and the conditions under which alternatives are used, (3) basic auditing concepts, (4) audit evidence and documentation, (5) analytical reviews, (6) the audit risk model, (7) review and documentation of internal controls, (8) audits of cycles, (9) statistical sampling, and (10) audit objectives and audit procedures for mechanized systems. Emphasis is on the conceptual development of the subject matter, the nature of professional practice, and the technology of auditing.

A437 Advanced Managerial Accounting (3 cr.) P: A325, and consent of the instructor. Objective of course is to provide students with advanced managerial accounting knowledge and skills. Emphasis is on strategic decision making and management control systems. Students will provide case analyses and presentations.

A439 Advanced Auditing (3 cr.) P: A424. Coverage of ethics for the accounting profession. Issue of legal liability. Audit program planning. Statistical sampling applications. Use of EDP auditing.

A490 Independent Study in Accounting (1-3 cr.) P: consent of undergraduate program chairperson and instructor. Supervised individual study and research in student's special field of interest. The student will propose the investigation desired and, in conjunction with the instructor, develop the scope of work to be completed. Written report required.

Computer Information Systems

Note: Senior standing and Integrative Core are prerequisites for all 400-level Kelley School of Business courses.

S302 Management Information Systems (3 cr.) P: K201. Overview of management information systems (MIS) within a business context with emphasis on end-user computing. Covers MIS theory and practice as they relate to management and organization theories; current trends in MIS;

managerial usage of information systems; computer hardware, software, and telecommunications; information systems for marketing, finance, accounting, and other business areas; systems development process; and the role of microcomputers. Provides experiential learning by exposure to various decision-support tools for microcomputers.

S305 Business Telecommunications (3 cr.)

P: S302. Introduces students to a wide range of telecommunications technologies, including local area networks, wide area networks, and the Internet, as well as to the uses of these technologies in the organization.

S307 Data Management (3 cr.) P: K201. Improves students' understanding of, and develops their skills in, the design and implementation of business databases using modern database management systems. Covers data structures and the conceptual, logical, and physical design of databases, as well as database implementation and general issues in business data management.

S310 Systems Analysis and Design (3 cr.)

P: F301, M301, P301; S307 or concurrent. Analysis of an organization and the subsequent design of computer systems to meet business requirements are at the heart of the computer information systems (CIS) field. This is the first in a two-course sequence with S410 that addresses the multiphased process for developing information systems. Courses follow the system's development life cycle, although alternative methodologies are also covered. This first course covers the phases from information systems planning through the specification of structured system requirements in functional form (i.e., logical system design) and concentrates on methods, techniques, and tools used to determine information requirements and to document these requirements in a thorough and unambiguous form. Also introduces computer-aided software engineering (CASE) technology. Students learn the discipline of systems analysis and logical design through a hypothetical case situation.

S410 Systems Implementation (3 cr.)

P: S310. Effective development of an information system depends on proper utilization of a broad range of information technology, including database management systems, operating systems, computer systems, and telecommunications networks. The second course in a two-course sequence with S310 that addresses the multiphased process for developing information systems, this course covers the phases from physical system design through the installation of working information systems. Concentrates on using the results of systems analysis and design, typically documented in CASE technology, and either building or generating systems to meet these specifications. A semester-long field project and various hands-on exercises provide practical experience in building, testing, and installing a system.

S435 Advanced Topics in Computer

Information Systems (3 cr.) P: S302 and consent of the department chairperson. Variable topics course; topics offered will depend on student interest and faculty interest and expertise. Possible topics include telecommunications and networking, advanced systems development methods, data administration, and management of the information systems function.

S490 Independent Study in Computer

Information Systems (1-3 cr.) P: S305, S307, S310; consent of department chairperson and instructor. Supervised individual study and research in student's special field of interest. Student will propose the investigation to be completed. Comprehensive written report required.

Business Law

Note: Senior standing and Integrative Core are prerequisites for all 400-level Kelley School of Business courses.

L100 Personal Law (3 cr.) Effects of law on everyday lives. May include such topics as family law; criminal offenses and traffic violations; personal injury and property damage claims; employee rights; landlord-tenant law; consumer rights; debt collection; selected real and personal property issues; wills and estates; selected contract law issues; and forms of business organization (partnership, proprietorship, and corporation).

L201 Legal Environment of Business (3 cr.) P: sophomore standing. Emphasis on understanding the nature of law through examining a few areas of general interest such as the duty to avoid harming others (torts), the duty to keep promises (contracts), and government regulation of business. Credit not given for both L201 and L203. Not offered on Indianapolis campus.

L203 Commercial Law I (3 cr.) P: sophomore standing. Includes the nature of law, torts, contracts, the sale of goods, and the legal regulation of business competition. For accounting majors and others intending also to take L303 in order to attain a broad yet fairly detailed knowledge of commercial law. Credit not given for both L203 and L201.

L303 Commercial Law II (3 cr.)

P: L201 or L203. Focuses on the law of ownership, forms of business organization, commercial paper, and secured transactions. For accounting majors and others desiring a broad yet fairly detailed knowledge of commercial law.

L490 Independent Study in Business Law

(1-3 cr.) P: consent of undergraduate program chairperson and instructor. Supervised individual study and research in student's special field of interest. The student will propose the investigation desired and, in conjunction with the instructor, develop the scope of work to be completed. Written report required.

Finance

Note: Senior standing and Integrative Core are prerequisites for all 400-level Kelley School of Business courses.

F260 Personal Finance (3 cr.) Financial problems encountered in managing individual affairs; family budgeting, installment buying, insurance, home ownership, and investing in securities. No credit for Kelley School of Business students when taken concurrently with or after the integrative core.

F301 Financial Management (3 cr.) P: BUS A100, A201, A202, K201, L203, X100, X103, X204, COMM R110, ECON E201, E202, E270, ENG W131, MATH M118, M119. Part of the integrative core, along with P301 and M301. Broad survey of finance for all business students. Provides a conceptual framework of a firm's investment, financing, and dividend decisions; includes working capital management, capital budgeting, and capital structure strategies.

F305 Intermediate Corporate Finance (3 cr.) P: F301. Part of the finance core. Provides a rigorous treatment of the fundamental concepts of corporate finance for finance majors. Covers capital budgeting, the valuation of firms, and capital structure and payout policies. Serves as a foundation for all 400-level finance electives.

F402 Corporate Financial Strategy and Governance (3 cr.) P: F305, A311. Advanced treatment of corporate financial management. Covers all major areas of corporate financial decisions: capital budgeting, dividends, capital structure, cash-flow projections, mergers, and acquisitions. Makes extensive use of spreadsheet modeling.

F420 Equity and Fixed Income Investments (3 cr.) P or C: F305, A311. Rigorous treatment of fundamental concepts of finance for all students with a concentration in finance. In particular, enables students to develop the skills for portfolio optimization, pricing of equity, examining derivatives and fixed income, analyzing market efficiency, and understanding the basis of corporate financial policy. Serves as a foundation for all 400-level finance electives.

F446 Bank and Financial Intermediation (3 cr.) P: F305, A311. The main topics are (1) the economic role of financial intermediaries, with an emphasis on commercial banks; (2) the evolution of markets in which banks and other financial intermediaries operate; and (3) the regulation of commercial banks and other financial institutions.

F480 Professional Practice in Finance (3-6 cr.) P: junior or senior standing in major area and consent of undergraduate program chairperson. Application filed through the coordinator of internships. Work experience in cooperating firm or agencies. Comprehensive written report required. Grade of S or F assigned by faculty.

F490 Independent Study in Finance (1-3 cr.) P: consent of undergraduate program chairperson and instructor. Supervised individual study and research in student's special field of interest. The student will propose the investigation desired and, in conjunction with the instructor, develop the scope of work to be completed. Written report required.

F494 International Finance (3 cr.) P: F301. A study of the international financial markets in which firms operate and of financial management in an international environment. Topics include exchange rates, international arbitrage, exchange rate risk management, international financing and diversification, and multinational capital budgeting.

Real Estate

Note: Senior standing and Integrative Core are prerequisites for all 400-level Kelley School of Business courses.

R305 Introduction to Real Estate Analysis (3 cr.) P: F301. For students who may take additional real estate courses. Topics include real estate law, brokerage, property management, appraising, mortgage finance, and investment analysis. Emphasis on the analytical techniques applicable to real estate.

R440 Real Estate Appraisals (3 cr.) P: F305 or consent of instructor. Methods of appraising real property, with emphasis on income property; covers relevant concepts and analytical techniques. Course content is similar to that which a professional appraiser must learn.

R443 Real Estate Finance and Investment Analysis (3 cr.) P: F305 or consent of instructor. Application of financial concepts and techniques to the analysis of real estate financing and investment alternatives. Computer analysis and case studies are used.

R490 Independent Study in Real Estate and Land Economics (1-3 cr.) P: consent of undergraduate program chairperson and instructor. Supervised individual study and research in student's special field of interest. The student will propose the investigation desired and, in conjunction with the instructor, will develop the scope of work to be completed. Comprehensive written report required.

Management

Note: Senior standing and Integrative Core are prerequisites for all 400-level Kelley School of Business courses.

J401 Administrative Policy (3 cr.) P: F301, M301, P301, Z302, X420, and senior standing. Administration of business organizations: policy formulation, organization, methods, and executive control.

J404 Business and Society (3 cr.) Examines major ethical theories as a basis for analyzing ethical behavior in the business environment. Investigates such issues as economic competition, discriminatory

practices, manipulation of power, environmental conservation, and organizational cultures.

J490 Independent Study in Personnel Management and Organizational Behavior (1-3 cr.) P: consent of undergraduate program chairperson and instructor. Supervised individual study and research in student's special field of interest. The student will propose the investigation desired and, in conjunction with the instructor, develop the scope of work to be completed. Comprehensive written report required.

W311 New Venture Creation (3 cr.) P: F301, M301, P301. Primarily for those interested in creating a new business venture or acquiring an existing business. Covers such areas as choice of a legal form, problems of the closely held firm, sources of funds, preparation of a business plan, and negotiating.

W430 Organizations and Organizational Change (3 cr.) P: Z302. Analysis and development of organizational theories with emphasis on environmental dependencies, sociotechnical systems, structural design, and control of the performance of complex systems. Issues in organizational change, such as appropriateness of intervention strategies and techniques, barriers to change, organizational analysis, and evaluation of formal change programs.

W480 Professional Practice in Management (3-6 cr.) P: junior or senior standing in major area and consent of undergraduate program chairperson. Application filed through the coordinator of internships. Provides work experience in cooperating firm or agency. Comprehensive written report required. Grade of S or F assigned by faculty.

W490 Independent Study in Business Administration (1-3 cr.) P: consent of undergraduate program chairperson and instructor. Supervised individual study and research in student's special field of interest. The student will propose the investigation desired and, in conjunction with the instructor, develop the scope of work to be completed. Comprehensive written report required.

W494 Herman B Wells Seminar in Leadership (3 cr.) P: senior standing and consent of instructor. Open to Kelley School of Business seniors and selected seniors from other schools with high scholastic ability and promise of developing leadership qualities exemplified by Herman B Wells.

Z302 Managing and Behavior in Organizations (3 cr.) P: junior standing. Integration of behavior and organizational theories. Application of concepts and theories toward improving individual, group, and organizational performance. Builds from a behavioral foundation toward an understanding of managerial processes.

Z404 Effective Negotiations (3 cr.) P: Z440. Exposure to the concepts of negotiations in both the national and international environments, including

negotiation strategies and tactics, influence, third-party intervention, audience effects, nonverbal communication, and ethical and cultural aspects. Case studies, simulations, and guest speakers will be used throughout the course.

Z440 Personnel-Human Resource Management (3 cr.) P: Z302. Nature of human resource development and utilization in American society and organizations, government programs and policies, labor force statistics, organizational personnel departments, personnel planning, forecasting, selection, training, and development. Integration of government and organizational human resource programs.

Z441 Wage and Salary Administration (3 cr.) P: Z440. Survey of problems faced by modern managers of compensation systems. In-depth look at the role of company, government, union, and employee in the design and administration of total compensation systems. Describes current wage and salary systems and their advantages and disadvantages. Integrates theory and practice through case analysis.

Z443 Developing Employee Skills (3 cr.) P: Z440. Focuses on skills that relate to the acquisition and/or identification of knowledge, skills, and abilities among job applicants or current employees. Students will learn how to identify individuals who currently possess the knowledge, skills, and abilities (KSAs) required to be effective members of contemporary organizations and how to identify specific training needs and formulate and implement programs designed to address observed KSA deficiencies.

Z444 Personnel Research and Measurement (3 cr.) P: Z440. Review and evaluation of studies in personnel research in appropriate journals. In-depth study of selected personnel topics. Includes development of personnel measures and human resource audits.

Z445 Human Resource Selection (3 cr.) P: Z440. The ability to evaluate applicants and predict their future performance is a critical function in any organization that wishes to have a competitive edge over other firms. This course will provide students with an understanding of the technical components of selection, including how to determine which applicant characteristics should be examined, what procedures should be used to gather information, and how that information should be combined to identify qualified job applicants.

Z480 Professional Practice in Human Resource Management (3-6 cr.) P: junior or senior standing in major area and consent of undergraduate program chairperson. Application filed through the coordinator of internships. Provides work experience in cooperating firm or agency. Comprehensive written report required. Grade of S or F assigned by faculty.

Z490 Independent Study in Personnel Management and Organizational Behavior (1-3 cr.) P: consent of undergraduate program

chairperson and instructor. Supervised individual study and research in student's special field of interest. The student will propose the investigation desired and, in conjunction with the instructor, develop the scope of work to be completed. Comprehensive written report required.

International Business

Note: Senior standing and Integrative Core are prerequisites for all 400-level Kelley School of Business courses.

D301 The International Business Environment (3 cr.) P: ECON E201-E202 or equivalent, minimum of junior standing, or consent of instructor. Economic environment for overseas operations. Governmental policies and programs that affect international business. Economic and political philosophies around the world; patterns of government-business relationships. Economic development and business activities in differing political and cultural environments.

D302 International Business: Operation of International Enterprises (3 cr.) P: ECON E201-E202 or equivalent, minimum of junior standing, or consent of instructor; D301 recommended. International dimensions of marketing, finance, accounting, taxation, and personnel with an emphasis on management decisions and implementation. Analytical framework for decision making in a multinational context.

D490 Independent Study in International Business (1-3 cr.) P: consent of undergraduate program chairperson and instructor. Supervised individual study and research in student's special field of interest. The student will propose the investigation desired and, in conjunction with the instructor, develop the scope of work to be completed. Written report required.

D496 Foreign Study in Business (2-6 cr.) P: senior standing and consent of instructor. Work in, or visits to, business firms; discussions with business executives and government officials. Prior background reading, orientation work, and approval of project required. For every three weeks of foreign residence, students earn 2 credit hours.

Marketing

Note: Senior standing and Integrative Core are prerequisites for all 400-level Kelley School of Business courses.

M300 Introduction to Marketing P: A200, ECON E201-E202. Examination of the market economy and marketing institutions in the United States. Decision making and planning from the manager's point of view; impact of marketing actions from the consumer's point of view. No credit toward a degree in business.

M301 Introduction to Marketing Management (3 cr.) P: BUS A100, A201, A202, K201, L203, X100, X103, X204, COMM R110, ECON E201, E202, E270,

ENG W131, MATH M118, M119. Part of the integrative core, along with F301 and P301. Marketing planning and decision making examined from firm's and consumer's points of view; marketing concept and its companywide implications; integration of marketing with other functions. Market structure and behavior and their relationship to marketing strategy and implementation.

M303 Marketing Research (3 cr.) P: M301. Focuses on the role of research in marketing decision making. Defining research objectives, syndicated and secondary data sources of marketing information, exploratory research methods, survey research design, experimental design, and data analysis.

M401 International Marketing (3 cr.) P: M303, or concurrent, or consent of the instructor. Covers world markets, their respective consumers, and their political/economic marketing environments. Examines the marketing issues required to meet the product, promotion, price, and distribution demands of a world market. Although the course has a global orientation, issues specific to exporting are discussed.

M402 Marketing Channels (3 cr.) P or C: M303 or consent of instructor. Marketing channels analyzed as organized behavior systems. Focuses on the institutional structure, relationships, and functions of channels of distribution. Franchising, vertical integration, and vertical channel agreements also are emphasized.

M405 Buyer Behavior (3 cr.) P or C: M303 or consent of instructor. Description and explanation of consumer behavior. Demographic, socioeconomic, psycho-graphic, attitudinal, and group influences on consumer decision making. Applications to promotion, product design, distribution, pricing, and segmentation strategies.

M407 Business-to-Business Marketing (3 cr.) P or C: M303 or consent of instructor. Problems, activities, and decision methods involved in the marketing of goods and services by business to business. Demand estimation, pricing, promotion distribution systems, and role of nonconsumer buyers.

M411 Transportation Carrier Management (3 cr.) P or C: M303 or consent of instructor. Study of the carrier-shipper marketing interface with concentration on the variables of rates, service, and government regulations. Modal coverage from an integrated marketing viewpoint. An advanced course that exposes students to market-rate considerations, carrier financial problems, operational factors, and marketing opportunities. Functional analysis of all major transportation modes. Identification of major issues, analysis of alternatives, and discussion of probable future outcomes.

M412 Physical Distribution Management (3 cr.) P or C: M303 or consent of instructor. Management of product distribution systems within an organization. Traffic, inventory control, warehousing,

and other activity centers are analyzed for improvement and related to overall systems performance. Order entry and the customer service variables of order-cycle time and reliability are examined in relation to the sales function. Includes analysis of the impact of physical distribution decisions on other functional areas.

M415 Advertising and Promotion Management (3 cr.) P or C: M303 or consent of instructor. Basic advertising and sales-promotion concepts. The design, management, and integration of a firm's promotional strategy. Public policy aspects and the role of advertising in marketing communications in different cultures.

M419 Retail Management (3 cr.) P or C: M303 or consent of instructor. Major management problems in retail institutions. Treatment of retail/marketing strategy design and problems related to financial requirements, buying, inventory, pricing, promotion, merchandising, physical facilities, location, and personnel.

M426 Sales Management (3 cr.) P or C: M303 or consent of instructor. Emphasizes the activities and problems of field sales management. Includes organizing the sales force, recruiting, training, compensation, motivation, sales techniques, forecasting, territory design, evaluation, and control. Lectures and case studies.

M450 Marketing Strategy (3 cr.) P: M303, one advanced marketing course, and senior standing; restricted to students in the marketing concentration. Ideally taken in the student's last semester. Capstone course for marketing majors. Draws on and integrates materials previously taken. Focuses on decision problems in marketing strategy and policy design, and application of analytical tools for marketing and decision making.

M480 Professional Practice in Marketing (3-6 cr.) P: M301, junior or senior standing in major area, and consent of undergraduate program chairperson. Application filed through the coordinator of internships. Work experience in cooperating firm or agency. Comprehensive written report required. Grade of S or F assigned by faculty.

M490 Independent Study in Marketing (1-3 cr.) P: consent of undergraduate program chairperson and instructor. Supervised individual study and research in student's special field of interest. The student will propose the investigation desired and, in conjunction with the instructor, develop the scope of work to be completed. Written report required.

Operations and Decision Technologies

Note: Senior standing and Integrative Core are prerequisites for all 400-level Kelley School of Business courses.

K201 The Computer in Business (3 cr.) Introduction to the role of computers and other information technologies in business (with emphasis on microcomputer applications). Provides instruction

in both functional and conceptual computer literacy. Experimental exercises include learning a Windows-based spreadsheet (Excel), a relational database (Access), electronic mail, and Internet navigation tools. These hands-on labs emphasize application of these learned skills to solve a variety of business problems. The lectures focus on the use and application of technology (hardware, software, storage/multimedia, Internet history, Internet in business, database management systems, and security/privacy of data in this information age).

K480 Professional Practice in Decision Sciences (3-6 cr.) P: junior or senior standing in major area and consent of undergraduate program chairperson. Application filed through the Professional Practice Program office. Work experience in cooperating firm or agencies. Comprehensive written report required. Grade of S or F assigned by faculty.

K490 Independent Study in Decision Sciences (1-3 cr.) P: consent of undergraduate program chairperson and instructor. Supervised individual study and research in student's special field of interest. The student will propose the investigation desired and, in conjunction with the instructor, develop the scope of work to be completed. Written report required.

P301 Operations Management (3 cr.) P: BUS A100, A201, A202, K201, L203, X100, X103, X204, COMM R110, ECON E201, E202, E270, ENG W131, MATH M118, M119. A survey course concerned with the production and distribution of goods and services. Part of the integrative core, along with F301 and M301. Examines how a firm produces and delivers its goods and services, with consistent and acceptable levels of quality, in a cost-effective manner. The discussion covers a wide range of interrelated issues including quality and process improvement, forecasting, planning, resource management, customer service, scheduling, and layout and process design. A semester-long, team project is the primary activity used to integrate the three core courses.

P480 Professional Practice in Operations Management (3-6 cr.) P: junior or senior standing in major area and consent of undergraduate program chairperson. Application filed through the coordinator of internships. Work experience in cooperating firm or agency. Comprehensive written report required. Grade of S or F assigned by faculty.

P490 Independent Study in Operations Management (1-3 cr.) P: consent of undergraduate program chairperson and instructor. Supervised individual study and research in student's special field of interest. The student will propose the investigation desired and, in conjunction with the instructor, develop the scope of work to be completed. Written report required.

General and Honors Courses

Note: Senior standing and Integrative Core are prerequisites for all 400-level Kelley School of Business courses.

X100 Business Administration: Introduction (3 cr.) Business administration from the standpoint of the manager of a business firm operating in the contemporary economic, political, and social environment. No credit for Kelley School of Business students when taken concurrently with or after the integrative core.

X103 Business Learning Community (1 cr.) Authorization required. This course is designed to assist students to be successful at the university and to develop skills and competencies that will enable a student to perform well in courses offered by the Kelley School of Business. Each Learning Community has an instructional team that is led by a faculty member and includes a student mentor, an academic advisor, and a librarian. The instructional team structures the learning environment to provide participants with as much academic support as possible.

X203 Independent Study in Community Service Learning (1-3 cr.) P: sophomore standing. Authorization required. Independent study course for students intending to apply to the Kelley School of Business and who have 26-56 credit hours. Students will participate in an online library research program, survey and analyze written works on business ethics and societal responsibility, and participate in a group social learning project that involves multiple visits to elementary schools. Credit not given for both X103 and X203.

X204 Business Communications (3 cr.) P: ENG W131 or equivalent with grade of C or better. Theory and practice of written communication in business; use of correct, forceful English in preparation of letters, memoranda, and reports.

X220 Career Perspectives (2 cr.) P: sophomore standing. Assists students in constructing their academic programs and postcollege plans. Students are involved in group interaction with managers, senior executives, faculty, junior or senior student mentors, alumni, and community leaders. Students use data from tests and exercises to consider career options as they relate to such topics as globalization, total quality management, workforce diversity, leadership theory, and volunteerism.

X302 Communication Core II (1 cr.) C: A328. Emphasizes development of communication skills through writing exercises related to tax research. In addition, covers how to access the primary and secondary sources of tax law, including the Internal Revenue Code, regulations and other administrative pronouncements, and judicial decisions. Explains the research process and the use of research tools to locate sources of tax law. Utilizes both paper products and electronic (Internet) resources. Emphasizes how to read and interpret source materials. Tax research assignments stress writing skills and the need for effective communication of research findings.

X390 Integrative Experience (1 cr.) Integrative case exercise involving the finance, marketing, and operations functions; required of students who did not complete the integrative core course work (F301,

M301, P301) on the Bloomington or Indianapolis campuses.

X400 Integration of International Business Study (1 cr.) P: admission to a Kelley School of Business overseas study program. Seminar integrates curriculum in business overseas study program with domestic business practice and philosophy and the Kelley School of Business curriculum.

X401 Community Service Learning: Focus on Children (1 cr.) P: authorization. Provides training, orientation, and reflection for student volunteers who are assigned to elementary school children during the enrolled semester. The course will briefly cover child development and issues related to at-risk children and the agencies that serve them. A minimum of two hours per week community service through a Kelley School of Business-approved program is required. The course is graded S/E.

X405 Topical Explorations in Business (1-3 cr.) Specific topic to be announced as the course is offered.

X420 Business Career Planning and Placement (2 cr.) P: junior standing. Assists students in obtaining positions consistent with career goals. Covers career planning, self-assessment, career options, organized employment campaigns, interviewing techniques, employment communications, alternate job search strategies, and career management. Involves in-depth work with resume software, electronic mail, and other communication tools. Session with corporate managers describing work issues and training programs. Also open to seniors in schools other than business.

X485 Overseas Study I (3 cr.) P: enrollment in a Kelley School of Business overseas study program. Lectures and discussion on aspects of the current international business environment.

X486 Overseas Study II (3 cr.) P: enrollment in a Kelley School of Business overseas study program. Lectures and discussion on aspects of the current international business environment.

X487 Seminar in Business Administration (1-3 cr.) Instruction of an interdisciplinary nature for student groups involved in university-related nonprofit ventures. Interested groups must be sponsored by a Kelley School of Business faculty member and must obtain approval for the seminar from the Undergraduate Policy Committee. May be repeated up to a maximum of 6 credits.

X488 Current International Topics (1-6 cr.) P: enrollment in a Kelley School of Business overseas study program. Lectures and discussion on aspects of the current international business environment, as well as the cultural aspects of the area in which an overseas study program is located.

X496 Supervised Independent Honors Research in Business (1-5 cr.) P: senior standing. For students in Kelley School of Business Honors Program.

Kelley School of Business Administrators and Faculty, Bloomington and Indianapolis

The faculty of the Indiana University Kelley School of Business at Bloomington and Indianapolis are identified below. In addition to these full-time faculty, a dedicated group of individuals who work elsewhere full-time also teach classes for the school. Although some of these people are new each semester, many have made long-term commitments to the Kelley School of Business. We gratefully acknowledge their contributions to the strength of the faculty and the school.

Administrative Officers

DAN DALTON, Ph.D., *Dean*

BRUCE JAFFEE, Ph.D., *Associate Dean for Academics*

JEFF GREEN, Ph.D., *Associate Dean for Research and Operations*

ROGER SCHMENNER, Ph.D., *Associate Dean for Indianapolis Programs*

JANE LAMBERT, M.S.B.A., *Executive Director of Academic Programs*

GLEN LARSEN, Ph.D., *Chairman of Undergraduate Program*

Faculty Emeriti

Belth, Joseph M., Ph.D. (*University of Pennsylvania, 1961*), C.L.U., C.P.C.U., *Professor Emeritus of Insurance*

Biagioni, Louis F., Ph.D. (*University of Missouri, 1964*), *Professor Emeritus of Accounting and Information Systems*

Bonser, Charles E., D.B.A. (*Indiana University, 1965*), *Professor Emeritus of Public and Environmental Affairs (School of Public and Environmental Affairs), Dean Emeritus of Public and Environmental Affairs, and Professor Emeritus of Business Administration (Kelley School of Business)*

Bunke, Harvey C., Ph.D. (*University of Illinois, 1951*), *Professor Emeritus of Business Administration and Professor Emeritus of Business Economics and Public Policy*

Childers, Victor E., D.B.A. (*Indiana University, 1967*), *Associate Professor Emeritus of International Business*

Dalrymple, Douglas J., D.B.A. (*Michigan State University, 1964*), *Professor Emeritus of Marketing*

David, H. Donald, D.B.A. (*Indiana University, 1959*), *Associate Professor Emeritus of Business Education*

Donnell, John D., D.B.A. (*Harvard University, 1966*), *Professor Emeritus of Business Administration*

Dvorak, Earl A., Ed.D. (*Indiana University, 1951*), *Associate Professor Emeritus of Business Education (School of Business) and Associate Professor Emeritus of Education (School of Education)*

Frumer, Samuel, D.B.A. (*Indiana University, 1960*), C.P.A., *Professor Emeritus of Accounting*

Gordon, Paul J., Ph.D. (*Syracuse University, 1958*), *Professor Emeritus of Management*

Granbois, Donald H., D.B.A. (*Indiana University, 1963*), *Professor Emeritus of Marketing*

Greenleaf, Robert W., D.B.A. (*Indiana University, 1961*), *Professor Emeritus of Finance*

Grossack, Irvin M., Ph.D. (*Columbia University, 1962*), *Professor Emeritus of Business Economics and Public Policy*

Haeberle, William L., D.B.A. (*Indiana University, 1952*), *Professor Emeritus of Management*

Hall, Robert W., D.B.A. (*Indiana University, 1972*), *Professor Emeritus of Operations Management*

Hartley, Joseph R., D.B.A. (*Indiana University, 1957*), *Professor Emeritus of Business Administration*

Leibman, Jordan H., J.D. (*Indiana University, 1979*), *Professor Emeritus of Business Law*

Long, John D., D.B.A. (*Indiana University, 1954*), C.L.U., C.P.C.U., *Arthur M. Weimer Professor Emeritus of Business Administration*

Marer, Paul, Ph.D. (*University of Pennsylvania, 1968*), *Professor Emeritus of International Business (Kelley School of Business) and Professor of Central Eurasian Studies (College of Arts and Sciences)*

Martin, David D., Ph.D. (*University of California, Los Angeles, 1955*), *Professor Emeritus of Business Economics and Public Policy*

Martin, E. Wainright, Jr., Ph.D. (*Ohio State University, 1952*), *Professor Emeritus of Business Administration*

Muth, John F., Ph.D. (*Carnegie Mellon University, 1962*), *Professor Emeritus of Operations Management*

Novit, Mitchell S., Ph.D. (*University of Michigan, 1966*), *Associate Professor Emeritus of Personnel and Organizational Behavior*

Ogan, Pekin, Ph.D. (*University of North Carolina, 1974*), *Professor Emeritus of Accounting and Information Systems*

Patterson, James M., Ph.D. (*Cornell University, 1961*), *Professor Emeritus of Marketing*

Pfister, Richard L., Ph.D. (*Massachusetts Institute of Technology, 1959*), *Professor Emeritus of Business Economics and Public Policy*

Phillips, Michael J., S.J.D. (*George Washington University, 1981*), *Professor Emeritus of Business Law*

Raber, Nevin W., M.A.L.S. (*Indiana University, 1952*), *Assistant Professor Emeritus of Business Administration*

Ryan, William G., M.B.A. (*Harvard University, 1956*), *Assistant Professor Emeritus of Business Administration*

Schaller, Howard G., Ph.D. (*Duke University, 1953*), *Professor Emeritus of Business Economics and Public Policy*

Scott, William E., Jr., Ph.D. (*Purdue University, 1963*), *Professor Emeritus of Personnel and Organizational Behavior*

Seawell, Lloyd Vann, D.B.A. (*Indiana University, 1958*), C.P.A., *Professor Emeritus of Accounting*

Shaffer, Robert H., LL.D. (*Indiana University, 1985*), *Professor Emeritus of Business Administration (School of Business) and Professor Emeritus of Education (School of Education)*

Stockton, R. Stansbury, Ph.D. (*Ohio State University, 1956*), *Professor Emeritus of Business Administration*

Suefflow, James E., Ph.D. (*University of Wisconsin, 1965*), *Professor Emeritus of Business Economics and Public Policy*

Thorelli, Hans B., Ph.D. (*University of Stockholm, Sweden, 1954*), E. W. Kelley Professor Emeritus of *Business Administration*

Waldman, Joseph M., D.B.A. (*Indiana University, 1966*), *Professor Emeritus of Business Administration*

Waters, L. Leslie, Ph.D. (*Indiana University, 1987*), *University Professor Emeritus of Transportation and Business History*

Wentworth, Jack R., D.B.A. (*Indiana University, 1959*), Arthur M. Weimer Professor Emeritus of *Business Administration*

Williams, Edgar G., D.B.A. (*Indiana University, 1952*), *Vice President Emeritus of Indiana University and Professor Emeritus of Business Administration*

Wilson, George W., Ph.D. (*Cornell University, 1955*), *Distinguished Professor Emeritus of Business Economics and Public Policy (School of Business) and Professor Emeritus of Economics (College of Arts and Sciences)*

Faculty

Acito, Franklyn, Ph.D. (*State University of New York at Buffalo, 1976*), *Chairperson and Professor of Marketing*

Akaiwa, Frank, M.B.A. (*Indiana University, 1994*), *Lecturer in Operations and Decision Technologies (part-time)*

Albright, S. Christian, Ph.D. (*Stanford University, 1972*), *Professor of Decision and Information Systems*

Alvey, Kelly, M.S. (*Indiana University, 1996*), *Visiting Lecturer in Operations and Decision Technologies*

Anderson, Ronald Dean, Ed.D. (*Indiana University, 1973*), *Professor of Marketing and American United Life Professor of Business Administration*

Andrews, Patricia H., Ph.D. (*Indiana University, 1974*), *Adjunct Professor of Business Administration*

Arthaud-Day, Brian, B.A. (*Wake Forest University, 1990*), *Visiting Lecturer in Accounting and Information Systems*

Astill, Andrea, B.A. (*University of Utah, 1998*), *Visiting Lecturer in Accounting and Information Systems*

Aydogan, Neslihan, Ph.D. (*University of Illinois, 1986*), *Professor of Accounting and Information Systems*

Baginski, Stephen P., Ph.D. (*University of Illinois, 1986*), *Professor of Accounting*

Baldwin, Timothy T., Ph.D. (*Michigan State University, 1987*), *Associate Professor of Business Administration*

Banks, Karen, M.S. (*Indiana University, 1995*), *Lecturer in Operations and Decision Technologies (part-time)*

Battle, Thomas E., Ph.D. (*Indiana University, 1985*), *Lecturer in Real Estate and Finance (part-time)*

Baye, Michael R., Ph.D. (*Purdue University, 1983*), *Bert Elwert Professorship in Business*

Beggs, Jerri M., M.B.A. (*Southern Illinois University, 1993*), *Visiting Lecturer in Marketing*

Beneish, Messod Daniel, Ph.D. (*University of Chicago, 1987*), *Associate Professor of Accounting and Information Systems*

Bettencourt, Lance A., Ph.D. (*Arizona State University, 1998*), *Assistant Professor of Marketing*

Bhattacharya, Utpal, Ph.D. (*Columbia University, 1990*), *Associate Professor of Finance*

Birr, Martin J., M.B.A. (*Indiana University, 1987*), *Lecturer in Accounting*

Blacconiere, Walter G., Ph.D. (*University of Washington, 1988*), *Assistant Professor of Accounting*

Blocher, James D., Ph.D. (*Purdue University, 1991*), *Assistant Professor of Operations Management*

Bond, Clay, M., M.A. (*Indiana University, 1987*), *Lecturer in Operations and Decision Technologies*

Bonser-Neal, Catherine, Ph.D. (*University of Chicago, 1988*), *Associate Professor of Finance (part-time)*

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Contents

139 School of Continuing Studies	
139 Mission and History	
139 A Statement from the Dean	
139 General Studies Degree Program	
139 Admissions and Transfers	
139 Transfers from and within Indiana University Campuses	
140 Transfers from Other Colleges/Universities	
140 Recognition of Previously Earned Credit	
140 Credits from Indiana University	
140 Credits from Other Institutions	
140 Credit by Examination from Other Institutions	
140 Self-Acquired Competency (SAC) Credit within Indiana University	
140 Self-Acquired Competency (SAC) Credit from Other Institutions	
140 Application Procedures	
140 Application Fees	
140 Application and Admission Deadlines	
140 General Requirements	
140 Academic Guidance	
140 General Requirements for the A.A.G.S.	
141 General Requirements for the B.G.S.	
141 Competency and Course Requirements	
141 Fundamental Skills Competency Requirements	
141 Course Distribution Requirements for the A.A.G.S.	
141 Course Distribution Requirements for the B.G.S.	
141 Completing Course Distribution Requirements	
141 Arts and Humanities	
142 Science and Mathematics	
142 Social and Behavioral Sciences	
142 Completing B.G.S. Concentration Requirements	
142 Completing Elective Requirements	
142 Academic Policies and Regulations	
142 Graduate Credit Hours	
142 Remedial Course Work	
142 Minors and Certificates	
142 Completing Optional Minors	
142 Completing Optional Certificates	
142 Program Planning and Counseling Guidelines	
142 Requirements	
142 Counseling	
142 Pass/Fail Option	
142 Withdrawal from Courses	
142 Special Opportunities	
142 Credit for Self-Acquired Competency (SAC)	
143 The SAC Portfolio	
143 Credit by Examination at Indiana University	
143 Credit Awarded through Nondepartmental Examinations	
143 Credit Awarded for Educational Programs in Noncollegiate Organizations	
143 Military Service Credit	
143 Academic Standing of Students	
143 Candidates for Degrees in Good Standing	
143 Graduation Certification	
143 Degrees Awarded with Distinction	
143 Dean's List	
143 Academic Probation	
143 Dismissal	
143 Readmission to the School of Continuing Studies	
144 Academic Forgiveness	
144 Scholarships	
144 School of Continuing Studies Scholarships	
144 General Studies Degree Program Offices	
144 Master of Science in Adult Education Program	
144 Mission and History	
144 Degree Requirements	
144 Frequently Asked Questions about the Adult Education Program	
145 For More Information	
145 Adult Education Course Descriptions	
145 School of Continuing Studies Officers	

School of Continuing Studies

Mission and History

Created in 1975, the School of Continuing Studies reflects the commitment of Indiana University and the state government to meeting the educational needs of adult citizens. The school consists of the following units:

- Academic Programs
- Administrative Services
- Marketing and Communication
- Learner Services
- Learning Partnerships
- Technology and Distance Learning Resources
- Campus Divisions

Through these units, the school plans and provides both credit and noncredit programs/courses that are offered in various learning formats at convenient times and locations. These programs/courses include:

- Associate of Arts in General Studies and Bachelor of General Studies
- Master of Science in Adult Education
- Certificate programs
- Independent study courses
- Credit and noncredit programs
- Courses for professional development and personal growth
- Conferences, workshops, and seminars on a wide range of subjects
- Evening and outreach programs
- Televised courses
- Weekend and “Learn and Shop” programs
- Workforce development and training

The School of Continuing Studies also provides specialized courses for on-site delivery at businesses, industries, and other off-campus locations via telecommunication and other electronic technologies.

A Statement from the Dean

The School of Continuing Studies is committed to providing high-quality educational opportunities to all interested citizens in Indiana and elsewhere. The school brings the resources of Indiana University to people who cannot take advantage of the traditional formal programs at fixed campus locations. The school also serves people who want to develop or maintain their vocational/professional competence or enrich their individual/family lives. Programming is continuously updated to meet the demands of a changing society.

We look forward to serving you.

Best wishes.

Jeremy Dunning, Dean
School of Continuing Studies

General Studies Degree Program

The School of Continuing Studies administers the General Studies Degree Program, which extends to students the opportunity to pursue a college education, regardless of their work schedules, domestic responsibilities, or logistical problems. Students may fulfill degree requirements by proceeding at their own pace and working from their own location.

The core of each general studies degree is a broadly based education encompassing the arts and humanities; the social, behavioral, and natural sciences; and mathematics. The curriculum expands students' body of knowledge and awareness of major areas of human experience.

A general studies education is not limited in scope; it develops historical consciousness and enables students to view the present within the context of the past as it nurtures future insight. The curriculum also explores ethical dimensions, and encourages students to think critically and creatively. A general studies degree establishes the foundation for a lifetime of continual learning and serves as the framework for a productive professional and personal life.

Students pursue an Associate of Arts in General Studies (A.A.G.S.) to achieve such personal and professional goals as career advancement, certification, self-enrichment, expanded employment options, military advancement, and a stepping stone to advanced studies. Upon completion of the A.A.G.S., many students apply to complete the Bachelor of General Studies (B.G.S.). The A.A.G.S. degree replaced the Associate of General Studies (A.G.S.) degree in 2001.

The B.G.S. provides basic preparation for many careers and graduate programs. B.G.S. graduates are employed in various professional fields, including education, law, government and social service, real estate, and private industry. Many B.G.S. students have gone on to graduate programs in such fields as anthropology, business, divinity studies, education, fine arts, international affairs, law, library science, management, nursing, public health, and social work. B.G.S. graduates have earned master's degrees and doctorates at Indiana University and other universities.

Two groups of students pursue general studies degrees: campus-based students, who have access to an Indiana University campus; and at-a-distance students, who do not. Campus-based students attend classes and receive counseling and other services through the campuses at which they are enrolled. At-a-distance (non-campus-based) students are admitted and receive counseling through the university-wide General Studies Degree Program office; they most often complete their degree requirements through the Independent Study Program, televised courses, and learning formats based on other alternative technology.

In addition to enrolling in regular session courses at any Indiana University campus or in independent study courses, students may fulfill general studies degree requirements in various ways, including credit

for self-acquired competency, credit by examination, credit for educational programs in noncollegiate organizations, military service credit, and credit for courses completed at other regionally accredited institutions.

Admissions and Transfers

New applicants and transfers are admitted to the General Studies Degree Program as follows:

1. **Applicants who have previously attended Indiana University or other colleges/universities as degree-seeking students** and who have earned a cumulative grade point average (GPA) of 2.0 or higher are eligible for admission to the General Studies Degree Program. Transfer students and former Indiana University students with lower than a 2.0 cumulative GPA may be admitted on academic probation. Current students whose cumulative GPA is lower than 2.0 are not directly admissible. Students who have been dismissed for academic reasons will not be considered for admission for at least one calendar year from the date of dismissal.
2. **Applicants 21 years of age or older who have received a high school diploma or General Educational Development (GED) high school equivalency diploma** and who have not attended a college/university are eligible for admission to the General Studies Degree Program.
3. **Applicants 21 years of age or older who have not earned a high school diploma or GED high school equivalency diploma** may be granted provisional status and apply for regular admission after successfully completing 12 semester hours of credit with a cumulative GPA of 2.0.
4. **Applicants under 21 years of age who have received a high school diploma or GED high school equivalency diploma** are generally required to meet admission criteria in effect at the campus to which they apply.

Applications will be processed after all academic credentials and the application fee are received. Once admitted, applicants receive a letter of admission, an information packet, and any transfer course evaluations within approximately six weeks.

Transfers from and within Indiana University Campuses

Students with previously earned credit from any academic program on any Indiana University campus may apply to pursue a general studies degree. Credits are evaluated on a course-by-course basis. (To find out how to apply previously earned Indiana University credit to a general studies degree, see “Credits from Indiana University.”) Students with academic deficiencies (cumulative GPA below 2.0) may be admitted on probation.

Students who have been dismissed from another academic unit of Indiana University and whose cumulative GPA is below 2.0 will not be considered for admission for at least one calendar year from the

date of dismissal. Students in dismissal status are eligible to enroll in independent study courses as nondegree students.

Transfers from Other Colleges/Universities

The School of Continuing Studies welcomes students who want to transfer from other regionally accredited colleges/universities. Applications for transfer admission are evaluated on the basis of applicants' cumulative GPA and the number of credits earned in all subjects. Transfer credit is awarded only for courses in which students earn a minimum grade of C in curricula similar to those offered by Indiana University.

Acceptance of credit from other institutions is determined by the Indiana University Office of Admissions, and the applicability of credit toward degree requirements is determined by the School of Continuing Studies. Only credits earned at Indiana University are calculated in a student's cumulative GPA.

Students who have been dismissed from other postsecondary institutions will not be considered for admission to the General Studies Degree Program for one calendar year from the date of dismissal. Students in dismissal status are eligible to enroll in independent study courses as nondegree students.

Recognition of Previously Earned Credit

Many students have previously earned academic credit from Indiana University or other institutions. These students may be eligible for credit by examination or self-acquired competency (SAC) credit. Previously earned credits are applied to the requirements of the A.A.G.S. and B.G.S. according to the following guidelines:

Credits from Indiana University A maximum of 50 credit hours previously earned at Indiana University may be applied to the A.A.G.S. A maximum of 100 credit hours previously earned at Indiana University may be applied to the B.G.S. Courses in which grades of D+, D, or D– were earned may be used as elective credit only; they will not be used to satisfy course distribution requirements.

Credits from Other Institutions A maximum of 45 hours of transfer credit from other regionally accredited colleges/universities may be applied to the A.A.G.S. A maximum of 90 hours of transfer credit from other regionally accredited colleges/universities may be applied to the B.G.S.

Credit by Examination from Other Institutions Students wanting to transfer credit by examination earned from other institutions must have satisfactorily completed sequential courses in that subject area prior to transfer.

Self-Acquired Competency (SAC) Credit within Indiana University SAC credit awarded on the basis of a portfolio by the faculty of one Indiana University campus will be honored on any other Indiana University campus to which students may transfer to complete the A.A.G.S. or B.G.S. Students should understand, however, that this credit will not

necessarily be honored by other Indiana University degree programs or by other institutions.

Self-Acquired Competency (SAC) Credit from Other Institutions A maximum of 8 hours of SAC credit awarded by other regionally accredited colleges/universities will be applicable toward the A.A.G.S.; a maximum of 15 credit hours will be applicable toward the B.G.S. Additional hours of SAC credit from other institutions must be reviewed in the same manner as other Indiana University SAC credit. The maximum amount of credit (transfer and Indiana University) awarded on the basis of a SAC portfolio that may be applied to the degrees is 15 credit hours toward the A.A.G.S. and 30 credit hours toward the B.G.S.

Application Procedures

Students interested in pursuing a general studies degree should apply for admission to the School of Continuing Studies as follows:

1. **All applicants** must complete the application form included in the General Studies Degree Program bulletin or available from any General Studies Degree Program office.
2. **Citizens of other countries, including those in the United States on immigrant visas**, must submit TOEFL scores and a 300- to 500-word handwritten essay. The essay is to be written on a topic of the student's choice and may include autobiographical information. Students who intend to pursue a general studies degree on an Indiana University campus must also submit the international application for admission.
3. **Applicants who have not previously attended a college/university as a degree student** must submit official copies of their high school transcripts or evidence of having earned a GED high school equivalency diploma. Applicants over the age of 21 without a high school diploma or GED high school equivalency diploma should attach a letter explaining how their previous experience has prepared them to pursue a college degree.
4. **Applicants who have previously attended a college/university** must request that the college(s) or university(ies) attended forward official transcripts to the Indiana University office to which the application form is being sent.
5. **Applicants who are veterans** should submit a copy of the DD214 form.
6. **Applicants presently on active duty** should request an official copy of their DD295 form from their education officer.
7. **Applicants who have completed educational programs/courses in noncollegiate organizations** must request that official records of program/course completion be sent directly from the awarding organization.
8. **Applicants who have taken the College-Level Examination Program (CLEP), the Defense Activity for Non-Traditional Support (DANTES) exams, or the ACT-PEP Regents (Excelsior) College exams** should request that official transcripts of their exam scores be sent directly from the testing agency.

9. **Applicants who have been placed on academic probation, dismissed, or denied readmission to a previously attended school** must provide a letter explaining the circumstances and the reasons they believe they will now be successful.

10. **Applicants** should submit application materials to the appropriate office on the campus at which they want to be admitted.

11. **At-a-distance (non-campus-based) students** should submit application materials to the university-wide office.

Application Fees

Applicants who have not previously attended Indiana University must pay a nonrefundable application fee at the time they submit their application. Application fees vary from campus to campus and are subject to change.

Application and Admission Deadlines

Applicants intending to take regular session courses on campus must check with the campus at which they will enroll for the specific application deadline. There are no specific application deadlines for at-a-distance (non-campus-based) students.

The official date of a student's admission is the date the student is accepted into the General Studies Degree Program. This date does not necessarily coincide with the date the application was processed by the Indiana University Office of Admissions. Current course work of students whose admission has been approved on or prior to the campus pass/fail deadline will be considered course work taken after admission to the General Studies Degree Program.

General Requirements

Academic Guidance

A counselor provides guidance for each General Studies Degree Program candidate. **Note:** Although students are encouraged to seek the advice of a General Studies Degree Program counselor, students are responsible for planning their own programs and meeting the degree requirements for graduation.

General Requirements for the A.A.G.S.*

1. Students must successfully complete a minimum of 60 credit hours to graduate.
2. No more than 15 credit hours—including credits earned on the basis of a Self-Acquired Competency (SAC) portfolio—in any one academic department may be applied toward the 60 required credit hours.
3. Students must successfully complete at least 15 of the 60 required credit hours at Indiana University or through the Independent Study Program. Earning credit through an academic department examination at Indiana University is equivalent to having completed that course at Indiana University. Credits earned by self-acquired competency, Defense Activity for Non-Traditional Education Support (DANTES), and College-Level Examination Programs (CLEP) may not be applied to this 15 credit hour requirement.

* Students must check with their home campus regarding how courses apply to their degree.

4. Students must complete at least 10 credit hours after admission to the General Studies Degree Program. This must be Indiana University course work. Credits earned by self-acquired competency, Defense Activity for Non-Traditional Education Support (DANTES), and College-Level Examination Programs (CLEP) may not be applied to this 10 credit hour requirement.
5. Students must earn a minimum cumulative GPA of 2.0 on all courses considered for the A.A.G.S. and on all courses completed after admission to the School of Continuing Studies. C– is the minimum grade accepted for any course completed to satisfy course distribution requirements.
6. Students must also fulfill the fundamental skills and course distribution requirements (see “Fundamental Skills Competency Requirements” and “Course Distribution Requirements”).
6. Students must earn a minimum cumulative GPA of 2.0 on all courses considered for the B.G.S. and on all courses completed after admission to the School of Continuing Studies. C– is the minimum grade accepted for any course completed to satisfy course distribution requirements.
7. Students who pursue the B.G.S. after completing the A.A.G.S. must fulfill the B.G.S. requirements in effect at the time of admission to the bachelor’s program.
8. Students may not be awarded the A.A.G.S. and B.G.S. within the same academic year. For example, academic year 2002 includes students graduating in December 2002, May 2003, June 2003, and August 2003.
9. Students must also fulfill the fundamental skills and course distribution requirements (see “Fundamental Skills Competency Requirements” and “Course Distribution Requirements”).

General Requirements for the B.G.S.*

1. Students must successfully complete a minimum of 120 credit hours to graduate.
2. Students must successfully complete at least 69 of the 120 required credit hours in the arts and sciences. No more than 21 of these 69 credit hours—including credits earned on the basis of a Self-Acquired Competency (SAC) portfolio—may be taken in a single arts and sciences department or subject area. In addition, no more than 30 of the 51 credit hours allowed outside the arts and sciences—including credits earned on the basis of a SAC portfolio—may be taken in any one professional school or technical program.
3. Students must successfully complete at least 30 of the 120 required credit hours at Indiana University or through the Independent Study Program. Earning credit through an academic department examination at Indiana University is equivalent to having completed that course at Indiana University. Credits earned by self-acquired competency, Defense Activity for Non-Traditional Education Support (DANTES), and College-Level Examination Programs (CLEP) may not be applied to this 30 credit hour requirement.
4. Students must complete at least 20 credit hours after admission to the General Studies Degree Program. This should be Indiana University course work. Credits earned by self-acquired competency, Defense Activity for Non-Traditional Education Support (DANTES), and College-Level Examination Programs (CLEP) may not be applied to this 20 credit hour requirement.
5. Students must successfully complete at least 30 of the 120 required credit hours at the 300 and 400 upper-division level.

* You must check with your home campus regarding how courses apply to your degree.

Competency and Course Requirements

The fundamental skills competency and course distribution requirements for the A.A.G.S. and B.G.S. are summarized in this section. Students must also complete the general requirements for the A.A.G.S. or B.G.S.

Fundamental Skills Competency Requirements

For both the A.A.G.S. and B.G.S., students must meet fundamental skills competency requirements that demonstrate college-level competency in four areas: written communication, oral communication, quantitative reasoning, and computer literacy. Students may demonstrate competency by completing an appropriate college-level nonremedial course or its transfer equivalent in English composition/writing, speech/communication, quantitative reasoning, and computer science; or by exercising other options, including departmental, CLEP, or DANTES exams.

A course that fulfills one of the four competency requirements at any Indiana University campus fulfills that requirement for the General Studies Degree Program at any other Indiana University campus. Acceptable grades for courses meeting competency requirements must be consistent with the campus’s requirements.

Many courses in the Independent Study Program are available to fulfill competency requirements. **Note:** Students should consult with their General Studies Degree Program counselors to determine which independent study courses fulfill competency requirements on their campuses.

Course Distribution Requirements for the A.A.G.S.

Twelve (12) credit hours are required in *each* of three learning areas: arts and humanities, science and mathematics, and social and behavioral sciences. The 12 credit hours required in each learning area

must include courses from at least two academic departments.

An additional 24 hours of elective credit must also be completed to fulfill A.A.G.S. requirements.

Arts and Humanities	12 credit hours
Science and Mathematics	12 credit hours
Social and Behavioral Sciences	12 credit hours
Electives	24 credit hours
Total Credit Hours Required for the A.A.G.S.	60 credit hours

Course Distribution Requirements for the B.G.S.

Twelve (12) credit hours are required in *each* of three learning areas: arts and humanities, science and mathematics, and social and behavioral sciences. *Students must also complete an 18 credit hour concentration in one of these three learning areas.* The 12 credit hours required in each learning area, as well as the 18 credit hour concentration, must include courses from at least two academic departments.

An additional 66 hours of elective credit—including a minimum of 15 additional credit hours in the arts and sciences and no more than 30 credit hours in any one professional school or technical program—must also be completed to fulfill B.G.S. requirements.

Arts and Humanities	12 credit hours
Science and Mathematics	12 credit hours
Social and Behavioral Sciences	12 credit hours
Concentration	18 credit hours
Arts and Sciences Electives	15 credit hours
General Electives	51 credit hours
Total Credit Hours Required for the B.G.S.	120 credit hours

Completing Course Distribution Requirements

Each general studies degree requires completion of course work in three learning areas: arts and humanities, science and mathematics, and social and behavioral sciences. These requirements provide students with a broad exposure to the humanities and sciences. To fulfill the requirements, students may choose from a wide variety of subject fields within each learning area. These subject fields are described below. **Note:** The subject fields grouped under the three learning areas may vary among Indiana University campuses. Students should consult their General Studies Degree Program counselors for their campuses’ specific requirements.

Arts and Humanities The distribution courses in this learning area provide knowledge and interpretive frameworks through which students may reflect on the complexity of human history, assess the difficulties of determining moral values, appreciate the range and value of human emotion and thought, and be sensitive to the varieties of aesthetic expression. The following departments offer courses

that fulfill the arts and humanities distribution requirement:

Afro-American Studies
American Studies
Classical Studies
Comparative Literature
English
Fine Arts
Folklore
Foreign Language courses
History
History and Philosophy of Science
Musicology and Music History
Philosophy
Religious Studies
Speech
Theatre and Drama

Science and Mathematics The distribution courses in this learning area provide an appreciation of the physical and biological environment, introduce students to the discipline of systematic inquiry, provide insight into experimental methods and results, and illustrate the role and methods of the mathematical sciences. The following departments offer courses that fulfill the science and mathematics distribution requirement:

Anatomy and Physiology
Astronomy
Biology
Chemistry
Computer Science
Geology
Mathematics
Microbiology
Physics
Plant Sciences
Zoology

Social and Behavioral Sciences The distribution courses in this learning area provide students with the means to analyze and understand the social institutions in which they live, as well as the behavior of individuals in relating to one another and the world. The following departments offer courses that fulfill the social and behavioral science distribution requirement:

Anthropology
Economics
Geography
Linguistics
Political Science
Psychology
Sociology

Completing B.G.S. Concentration Requirements

B.G.S. students must complete a concentration area by adhering to the following guidelines:

1. Students must complete an additional 18 credit hours in one of three learning areas: arts and humanities, science and mathematics, or social and behavioral sciences.
2. Students must complete courses from at least two departments in the learning area they select for their concentration area.
3. Students must earn a minimum grade of C– in courses used to fulfill the concentration

requirement. Passing grades below C– may be used only as elective credit.

Completing Elective Requirements

A.A.G.S. and B.G.S. students may select any of the nonremedial, nondevelopmental courses offered by Indiana University to fulfill elective requirements. These electives enable students to explore diverse academic areas of interest and to tailor their general studies degree to their individual needs. Students are encouraged to consult with their General Studies Degree Program counselors and to choose courses in subjects related to their academic, professional, and personal interests.

Academic Policies and Regulations

Graduate Credit Hours

Graduate-level courses are often completed for personal enrichment; the credits are generally not applied to the undergraduate degree program. However, with prior approval, a maximum of 6 graduate credit hours may be applied to the B.G.S. The application of more than 6 graduate credit hours must have the dean's approval.

Remedial Course Work

Remedial courses are not college-level courses and therefore do not count toward the A.A.G.S. and B.G.S.

Minors and Certificates

Completing Optional Minors Minors may be completed in conjunction with the B.G.S. Students must discuss this possibility and obtain written approval from the school or department awarding the minor. This approval is to be placed in the student's file.

Completing Optional Certificates While meeting degree requirements, general studies students may simultaneously fulfill requirements for certain certificates. For example, the certificate in hospital accounting may be completed by at-a-distance (non-campus-based) General Studies Degree Program candidates, as well as by students enrolled on any Indiana University campus.

Most Indiana University campuses offer additional certificate programs that may be completed by local on-campus students. For more information on earning certificates, students should consult their General Studies Degree Program counselors.

Program Planning and Counseling Guidelines

The experience of faculty, counselors, and successful students suggests the following guidelines for effective planning of undergraduate programs.

Requirements Students should be thoroughly familiar with the school's general requirements, competency and course requirements, and academic policies.

Counseling Students consult with a General Studies Degree Program counselor as an integral

aspect of the School of Continuing Studies enrollment process. The counselor assists students in formulating a plan of study, which includes the required and elective courses that students must take to earn their degree.

Students should discuss with their counselor the appropriate method to establish fundamental skills competency requirements: specific courses, self-acquired competency, College-Level Examination Programs (CLEP), Defense Activity for Non-Traditional Education Support (DANTES) examination, departmental examination, or departmental exemption.

Students wanting to receive credit for self-acquired competency that also meets a fundamental skills competency requirement may use the portfolio review process (see "Credit for Self-Acquired Competency").

Pass/Fail Option

A.A.G.S. students may enroll in a maximum of four elective courses taken with a grade of P (pass) or F (fail). B.G.S. students in good academic standing may enroll in a maximum of eight elective courses taken with a grade of P or F.

Courses taken pass/fail must be electives. They may not be used to satisfy any of the course distribution requirements nor counted as part of a student's concentration area. The courses may be used to meet the B.G.S.'s 300- to 400-level course requirement and fundamental skills competency requirements.

Withdrawal from Courses

Because deadlines and procedures for withdrawal from courses may vary by campus and/or school, students should check with the appropriate campus's current *Schedule of Classes* to verify deadlines and procedures.

Special Opportunities

Credit for Self-Acquired Competency

The School of Continuing Studies recognizes that students gain college-level knowledge through various life experiences that are equivalent to the subject matter of specific courses in the university curriculum or that may be recognized as general-elective credit. Students who believe they may be eligible for Self-Acquired Competency (SAC) credit should discuss their life experiences in detail with their General Studies Degree Program counselor.

In general, the following procedures and limitations govern the awarding of SAC credit:

1. Students must be admitted to the School of Continuing Studies, have completed 12 credit hours at Indiana University subsequent to admission, and be in good academic standing before credit for self-acquired competency may be evaluated.
2. A maximum of 15 hours of SAC credit may be applied toward the A.A.G.S. A maximum of 30 hours of SAC credit may be applied toward the B.G.S.
3. Students seeking either general-elective or specific-course credit for self-acquired competency must always do so in consultation

with their General Studies Degree Program counselor. SAC credit must be carefully integrated with the total degree plan.

4. Learning must parallel courses in the Indiana University curriculum in order to be recognized as specific-course credit. Learning of college-level caliber that cannot be equated to a specific course is awarded as general-elective credit.
5. The General Studies Degree Program offices arrange for assessment of the SAC portfolio by faculty of the appropriate school or department.
6. The fee per credit hour recorded for self-acquired competency is the per-credit-hour fee charged for independent study university courses at the time the SAC credit is recorded on the official student record.

The SAC Portfolio The careful development of a SAC portfolio can be a rewarding learning experience. The General Studies Degree Program offices conduct self-acquired competency classes for students who want to complete a SAC portfolio. An independent study course, Education F400 Development of the Self-Acquired Competency Portfolio, is also available for this purpose.

Credit by Examination at Indiana University

Students who want to pursue credit by examination at Indiana University should consult with their General Studies Degree Program counselors and the appropriate department(s) at their local campuses.

Credit Awarded through Nondepartmental Examinations

Indiana University awards credit for Advanced Placement (AP) Examinations, College-Level Examination Programs (CLEP), Defense Activity for Non-Traditional Education Support (DANTES) examinations, and ACT-PEP Regents (Excelsior) College examinations on the basis of policy established by faculty at the campus where students will pursue their degrees. Students should consult with their General Studies Degree Program counselors as to the options available through nondepartmental examinations.

Students will not receive credit by taking DANTES, CLEP, or ACT-PEP Regents (Excelsior) College examinations for courses for which they have already received credit. Credits awarded on the basis of CLEP and DANTES scores will not be considered as after-admission or Indiana University credit hours.

Students should request that official transcripts of their AP, CLEP, DANTES, and ACT-PEP Regents (Excelsior) College examination scores be sent directly to the office to which they are applying.

Credit Awarded for Educational Programs in Noncollegiate Organizations

The School of Continuing Studies will consider the evaluation and credit recommendations of the following two publications when awarding credit to students who have successfully completed noncollegiate or in-company sponsored programs/courses:

1. American Council on Education, *The National Guide to Educational Credit for Training Programs*
2. The University of the State of New York, *A Guide to Educational Programs in Noncollegiate Organizations*

Students must request that official records of program/course completion be sent directly from the awarding organization. Students must also submit a complete description of the program/course, preferably a copy of program/course literature or an explanatory letter on the organization's letterhead stationery. For assistance with requests for transcripts or program/course descriptions, students may contact their General Studies Degree Program counselor.

Military Service Credit

Indiana University adheres to the American Council on Education's *Guide to Evaluation of Educational Experiences in the Armed Services* in granting students credit on the basis of education gained through military service, schools, and experience. To receive credit for their military service background, students must submit copies of their official discharge (DD214) or active-duty document (DD295), as well as certificates of completion and/or transcripts of service schools attended (for example, Army ARTS, Community College of the Air Force, Defense Language Institute).

Academic Standing of Students

Candidates for Degrees in Good Standing

Students are considered to be candidates in good standing for a general studies degree when they have

1. been officially admitted to degree status by the Office of Admissions.
2. earned a minimum academic GPA of 2.0 (C) for the last semester's work.
3. earned a minimum after-admission GPA of 2.0.
4. earned a minimum cumulative GPA of 2.0.

Graduation Certification

Candidates for graduation initiate the certification process by filing an Intent to Graduate form. For the specific procedure, students should consult with their General Studies Degree Program counselor at the time they enroll for their final semester/course.

Degrees Awarded with Distinction

The School of Continuing Studies recognizes outstanding performance in course work by awarding degrees with three levels of distinction: distinction, high distinction, and highest distinction. The level of distinction is determined by the overall GPA of each graduating class.

In order to graduate with distinction, students must have successfully completed 30 graded Indiana University credit hours for the A.A.G.S. and 60 graded Indiana University credit hours for the B.G.S. Remedial courses and courses taken on a pass/fail basis, as well as self-acquired competency (SAC) credits, are not counted.

Dean's List

The School of Continuing Studies Dean's List is announced in November of each year. General studies students are placed on the Dean's List when they have

1. completed—after admission to the School of Continuing Studies—at least 12 credit hours of graded course work. (FX, I, P, R, S, and SAC are not counted in the 12 credit hours). The course work must be completed during the prior academic year (from August 1 to July 31). **Note:** Independent study courses must be completed by July 31 for Dean's List consideration.
2. earned a minimum grade point average of 3.5 for applicable credit hours. For part-time students, all course work completed during the prior academic year (from August 1 to July 31) is included in tabulating the GPA. For full-time students, one semester (or both summer sessions) in which a minimum of 12 credit hours is completed may be considered in tabulating the GPA.

Students placed on the Dean's List receive a letter and certificate signed by the dean and the division representative.

Academic Probation

Students are automatically placed on academic probation whenever their GPA for a full-time semester or a 12 credit hour unit of work is below 2.0. Students' academic performance—and the academic performance of students who have been admitted on probation—will be evaluated upon completion of an additional 12 credit hours at Indiana University. Students will be removed from probationary status if their GPA for these 12 credits is at least 2.0 and if their cumulative GPA is at least 2.0. If a probationary student's GPA for the additional 12 credits is 2.0 but the cumulative GPA remains below 2.0, probationary status will be continued for another 12 credit hour unit of work; the cumulative GPA must be raised to at least 2.0 during this time, or probationary students will be dismissed (see below).

Dismissal

Students are subject to academic dismissal when they fail to make satisfactory progress toward their degree. Students will be dismissed whenever their GPA for a full-time semester or a 12 credit hour unit of work is below 1.0 and their cumulative GPA is below 2.0.

Probationary students will be dismissed if their GPA for the additional 12 credit hour unit of work is below 2.0. Students whose probationary status has been continued for a second 12 credit hour unit and who fail to achieve a cumulative GPA of 2.0 will also be dismissed.

Readmission to the School of Continuing Studies

The director of General Studies may consider petitions for readmission from students who have been dismissed. The director may recommend re-entrance without delay if warranted by exceptional circumstances and if the director believes the student will make satisfactory progress toward the degree. Students dismissed a second time may not be admitted for the next regular semester, but they are eligible to submit a petition for readmission after at least one regular semester has elapsed.

Academic Forgiveness

Upon successful completion (minimum GPA of 2.0) of 12 credit hours in the General Studies Degree Program, the following policies take effect:

1. At a student's option, grades of D or F earned at Indiana University five years or more before admission to the School of Continuing Studies may be deleted from the internal School of Continuing Studies record. The cumulative GPA on the Indiana University transcript will not change.
2. Students may request forgiveness of an unsatisfactory semester or 12 credit hours of part-time work at Indiana University if the semester/12 credit hours is/are within a five-year period before admission to the School of Continuing Studies. Although all Indiana University courses remain on a student's permanent record, the school can exclude all credits attempted and grade points earned during this unsatisfactory semester/12 credit hours when computing a student's School of Continuing Studies GPA. **Note:** If students exercise this option, none of the grades and credits earned during the unsatisfactory semester/12 credit hours may be applied to a general studies degree. Therefore, students are advised to consult with their General Studies Degree Program counselor about this policy's advisability.

Note: Although the options above allow unsatisfactory grades to be removed from the School of Continuing Studies' internal record, the grades remain on the official record maintained by the Indiana University Office of the Registrar.

Scholarships

School of Continuing Studies Scholarships

The School of Continuing Studies offers several scholarships for general studies degree students. Available to both full- and part-time students, the scholarships are based on financial need and academic merit, and usually range from \$500 to \$750 per academic year. The scholarships may also be eligible for the matching program at the Office of Student Financial Assistance (OSFA), doubling their actual value. Scholarship applications may be obtained from any general studies office until March 15, the application deadline.

General Studies Degree Program Offices

University-Wide General Studies Degree Office

Director of General Studies
Indiana University Bloomington
Owen Hall 101
790 E. Kirkwood Avenue
Bloomington, IN 47405-7101
Phone: (812) 855-2292
Toll-Free Phone: 1-800-334-1011
Fax: (812) 855-8680

Bloomington

Director of Continuing Studies
Indiana University Bloomington
Owen Hall 202
790 E. Kirkwood Avenue
Bloomington, IN 47405-7101
Phone: (812) 855-4991
Fax: (812) 855-8997

Columbus

Assistant Director, Student Services
Indiana University—Purdue University Columbus
4601 Central Avenue
Columbus, IN 47203-1769
Phone: (812) 348-7271
Fax: (812) 348-7257

Fort Wayne

Director of General Studies Degree Program
Indiana University—Purdue University Fort Wayne
Student Union Building 221
2101 Coliseum Boulevard East
Fort Wayne, IN 46805-1499
Phone: (219) 481-6828
Fax: (219) 481-6949

Gary

Division Chairperson for Continuing Studies
Indiana University Northwest
3400 Broadway
Gary, IN 46408-1197
Phone: (219) 980-6828
Fax: (219) 980-6653

Indianapolis

Director of Continuing Studies
Indiana University—Purdue University Indianapolis
Union Building 244
620 Union Drive
Indianapolis, IN 46202-5171
Phone: (317) 274-9840
Fax: (317) 274-5041

Kokomo

Director of Continuing Studies
Indiana University Kokomo
2300 S. Washington Street
P.O. Box 9003
Kokomo, IN 46904-9003
Phone: (317) 455-9427
Fax: (317) 455-9476

New Albany

Manager of Credit Programs
Indiana University Southeast
Knobview Hall 225
4201 Grant Line Road
New Albany, IN 47150-6405
Phone: (812) 941-2315
Fax: (812) 941-2588

Richmond

Director of Continuing Studies
Indiana University East
2325 Chester Boulevard
Richmond, IN 47374-1289
Phone: (317) 973-8203
Fax: (317) 973-8287

South Bend

Director of Extended Programs
Indiana University South Bend
1700 Mishawaka Avenue
P.O. Box 7111
South Bend, IN 46634-7111
Phone: (219) 237-4260
Fax: (219) 237-4599

World Wide Web Address for the General Studies Degree Program

scs.indiana.edu/univ/degrees.html

Master of Science in Adult Education Program

Mission and History

Offered since 1946, Indiana University's Master of Science in Adult Education Program teaches the most effective and up-to-date practices in adult education. The program is based on sound theories and the latest research and learning concepts. It values the uniqueness of individual learners and views learning as a lifelong process that can take place at all times and locations.

Faculty in the program believe that adult educators must possess vision, theoretical knowledge, and practical skills and that their teaching methods must integrate reflection and active learning. Faculty encourage students in the program to take control of their learning process and to treat their life experiences as part of the content of the graduate program.

Degree Requirements

To earn the Master of Science in Adult Education, students complete courses in four key areas:

1. Major core courses (18 to 21 credit hours).
2. Concentration courses (minimum of 9 credit hours). Courses outside the adult education major that help students meet their individual professional needs.
3. Bridge courses (optional, up to 6 credit hours). Self-directed study and practica that integrate adult education theory and practice into students' concentrations.
4. Elective courses. Courses that students may take to increase their understanding of topics that interest them. Not all students take electives.

Frequently Asked Questions about the Adult Education Program

1. **What do students learn?** Students learn the technical, instructional, and intellectual skills needed to perform the duties of a training

manager, human resource development specialist, or adult educator. They learn how to integrate experience and formal educational or training activities into an overall lifelong learning program to achieve personal and organizational goals.

2. **Who are adult education students?** Students include businesspeople, government employees, educators, nurses, clergy, airline pilots, attorneys, consultants, veterinarians, bankers, and individuals in many other occupations. Many students join the program to begin a new career; others join to enhance their current one.
3. **Where do graduates find jobs?** Graduates of the program live and work throughout the world. They include teachers and administrators in vocational programs and community colleges, human resource managers, corporate trainers, continuing educators, technical instructors, and computer trainers. Their job titles indicate the variety of adult education and training opportunities in both the private and public sectors.

For More Information

For more information about the Master of Science in Adult Education, contact:

Office of Adult Education
Union Building 507
Indianapolis, IN 46202-5171
Phone: (317) 274-3472
Fax: (317) 278-2280
E-mail: scs@indiana.edu
scs.indiana.edu

Adult Education Course Descriptions

Required Courses (18 to 21 credit hours)

D500 Introduction to Adult Education Theory (3 cr.) A study of the writings of major adult education theorists, including Lindeman, Knowles, Bergivin, and Friere. Adult education theories of practice in historical perspective. Students develop and defend their personal theories of practice.

D505 The Adult as a Client of Education I (3 cr.) Analysis of contemporary adult life with emphasis on the individual as related to the professional discipline of adult education and the development of educational programs for adults. Critical analysis of the theories and research methods in designing comprehensive adult education programs. This course is usually referred to as the life stages course.

D506 The Adult as a Client of Education II (3 cr.) D506 helps the student learn the adult education, human resources development, and training program planning process, including needs assessment, program development and promotion for organizational groups, either in the public or private sector. The course uses a market-based model and is often referred to as the marketing course.

D512 Seminar in Forms and Forces in Adult Education (3 cr.) The history and current status of adult education in the United States; the nature, scope,

purpose, and historical development of adult education institutions and program areas.

D521 Participation Training (2 cr.) Team building in groups; collaborative program planning and implementation; application of the design to appropriate settings; training in the roles of group leader, observer, and recorder; recognition and treatment of dysfunctional behaviors in group settings. Emphasis on functional aspects of group cohesion, consensus decision making, shared leadership, and program evaluation. Participation training is a small group, consensus decision-making process.

D620 Adult Education Research (3 cr.) Research in adult education. Survey course designed to develop an understanding of the philosophies that inform current research paradigms, the methods associated with those paradigms, and the relationship between theory and practice in adult education. This course uses current research articles and case studies as a means to critically examine issues of design, methodology, and trustworthiness.

D625 Topical Seminar (1-3 cr.) A one credit hour weekend workshop whose topics vary. One example is Distance Learning Technologies, which introduces the methods of creating and facilitating, using distributed education technologies.

Elective Courses (optional)

D600 Seminar in the Teaching-Learning Transaction in Adult Education (3 cr.) Critical inquiry into the theory of adult education learning activities. Includes a review of current research in the adult teaching-learning transaction and the designing and evaluating of individualized instruction of adults. This course is commonly called the instructional design course and involves developing an understanding of implementing adult education learning events.

D613 Diagnostic Procedure in Adult Education (3 cr.) Ways of identifying the educational needs of adults, with major emphasis on the theory and practice of the diagnostic procedure and the use of diagnostic skills for effective adult education program development. The student learns strategic planning, skills forecasting, and developing long-term training objectives. This course is often referred to as the organizational development course.

Bridge Courses (optional, up to 6 credits)

D550 Practicum in Adult Education (1-3 cr.) Supervised practice in instructional planning, teaching, and program development in adult education settings, including schools and agencies.

D590 Independent Study in Adult Education (1-3 credit hours) Individual research or study with adult education faculty members, arranged in advance of registration. A one- or two-page written proposal specifying the scope of the project, project activities, meeting times, completion date, and study product(s) should be submitted to the instructor during the first week of term. This course may be used to do an in-depth study of the relationship of the student's concentration area to the field of adult education.

D650 Internship in Adult Education (1-6 credit hours) Relates theory to practice through supervised field experiences and faculty appraisal and guidance. Students plan, conduct, and evaluate adult education programs in various institutional and community settings.

D660 Reading in Adult Education (1-6 credit hours) Guided individual study to meet the professional needs of advanced graduate students. Consultations with instructor required.

Portfolio (1-6 credit hours) A purposeful collection of a student's work assembled over time that documents the student's learning efforts, progress, and achievements.

School of Continuing Studies Officers

JEREMY DUNNING, Ph.D., *Dean*

JUDITH B. WERTHEIM, Ed.D., *Executive Associate Dean*

LARRY ONESTI, Ed.D., *Associate Dean*

R. GERALD PUGH, Ed.D., *Associate Dean*

EILEEN BALLIET, J.D., *Executive Director, Office of Learner Services*

JOHN P. BEESON, M.A., *Executive Director, Office of Learning Partnerships*

JOANN ALEXANDER BROWN, M.A., M.S., *Executive Director, Office of Marketing and Communication*

MICHAEL JASIAK, M.A., M.S., *Executive Director, Office of Technology and Distance Learning Resources*

General Studies Degree Program—University-wide

FRANK DISILVESTRO, Ed.D., *Director*

JAMES R. SCHELLHAMMER, Ed.D., *Counselor*

General Studies Degree Program—Campus Directors

SAUNDRA BROWN, M.S., *Manager, Credit Programs, Indiana University Southeast (New Albany)*

IRV LEVY, Ed.D., *Indiana University—Purdue University Indianapolis*

THEODORE W. HENGESBACH, Ph.D., *Indiana University South Bend*

RON WHITE, Ed.D., *Director, Indiana University Bloomington*

JULIE FELLERS HOOK, Ed.D., *Indiana*

University—Purdue University Fort Wayne

FRED HAKES, M.S., *Acting Director, Indiana University Kokomo*

ROBERT F. LOVELY, Ph.D., *Chairperson, Indiana University Northwest (Gary)*

VACANT, *Indiana University East (Richmond)*

SUSAN MONTGOMERY, M.B.A., *Assistant Director, Indiana University—Purdue University Columbus*

Department of Adult Education

HENRY S. MERRILL, Ed.D., *Chairman*

FRANK DISILVESTRO, Ed.D., *Associate Professor*

TRAVIS SHIPP, Ed.D., *Associate Professor*

ROSEMARY JENNISON, M.S., *Program Coordinator*



INDIANA UNIVERSITY SCHOOL OF DENTISTRY

Dental School (DS)
1121 W. Michigan Street
Indianapolis, IN 46202
(317) 274-8173
www.iusd.iupui.edu



Contents

149	History of the School of Dentistry
149	Mission

149	List of Programs
149	Undergraduate
149	Professional
149	Graduate

149	Allied Dental Programs
149	Dental Hygiene
150	Admission Requirements
150	Tuition and Ancillary Fees
150	Core Courses for the Professional
	Curriculum for Dental Hygienists
151	Dental Assisting
151	Admission Requirements
151	Tuition and Ancillary Fees
151	Core Courses for the Professional
	Curriculum for Dental Assistants

151	Administration
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152	Faculty
------------	----------------

History of the School of Dentistry

Indiana University School of Dentistry is one of the oldest dental schools in the nation. It was established as the Indiana Dental College in 1879 and became part of Indiana University in 1925. In 1933, IU built a facility to house the school at its current site on what is now known as the Indiana University–Purdue University Indianapolis campus. Today this sprawling, five-story edifice is composed of the original building and two major additions. It is the only dental school in the Hoosier state.

The school's reputation for excellence took firm root in the 1940s, when several key teachers and researchers began long and prolific careers on the dental faculty. It was during this era, for example, that three IU scientists, including dental professor Joseph Muhler, created the first stannous fluoride formula that became the active decay-preventing agent in Crest toothpaste. Dr. Muhler and other pioneering teachers at the dental school contributed a body of groundbreaking work that drew worldwide attention to Indiana University, and each left a legacy of knowledge that helped build the foundation for contemporary dental science.

In the twenty-first century, about 135 full-time and 120 part-time faculty members contribute to IU's teaching and research programs, and many have earned solid reputations as experts in their fields. About 40,000 square feet of space divided into more than a dozen facilities is now devoted to dental research opportunities at IU, including the school's Oral Health Research Institute, whose researchers have gained prominence for their studies of such subjects as fluoride and dental caries prevention.

More than 10,000 alumni of the school pursue a variety of careers in private practice, education, research, and public health throughout the United States and in more than 30 other countries.

Mission

The school is a member of the American Dental Education Association and is fully accredited by the Commission on Dental Accreditation of the American Dental Association.

Its mission is to promote optimal oral and general health of Indiana citizens and others through educational, research, and service programs. The school is committed to recruiting quality students and preparing them to become highly competent, ethical, and socially responsible practitioners of dentistry. The school also sees as part of its responsibilities the creation of opportunities for career-long learning for its graduates and other dental professionals through continuing education programs.

The school strives to maintain its role as a vital and productive member of Indiana University's scholarly community. It is dedicated to increasing the knowledge base in all areas related to oral health through an extensive research program that includes the participation of both faculty and students.

The school provides a broad spectrum of patient services as a principal means of furnishing clinical educational opportunities for students. About 100,000 dental appointments are scheduled annually for a population of nearly 17,000 dental patients. Treatment is provided at the school's clinic on campus as well as at several other patient care facilities, including the pediatric dentistry clinic at IU's James Whitcomb Riley Hospital for Children, the oral and maxillofacial surgery clinics at University and Wishard Memorial hospitals, and two clinics located in the community.

The dental school continually emphasizes to its students the importance of community service. Through collaborative partnerships with schools, health care centers, and other facilities in central Indiana, the school seeks to expose students to a variety of outreach experiences, particularly those involving special population groups. Students also are taught that part of their ongoing responsibilities as health care providers in the community will be to increase public awareness of the critical role oral health plays in one's overall well-being.

List of Programs

About 600 students of allied dentistry, dentistry, and graduate dental programs currently are pursuing certificates and degrees on the Indianapolis campus. Programs are offered in the following subjects:

Undergraduate*

Certificate in Dental Assisting
Associate of Science in Dental Hygiene (A.S.D.H.)
Bachelor of Science in Public Health Dental Hygiene (B.S.)

Professional

Doctor of Dental Surgery (D.D.S.)
Master of Science in Dentistry (M.S.D.) in a choice of eight subjects: dental materials, endodontics, operative dentistry, orthodontics, pediatric dentistry, periodontics, preventive dentistry, and prosthodontics.

Graduate

Master of Science (M.S.) in dental materials. (This degree is offered through the IU University Graduate School.)

Doctor of Philosophy (Ph.D.) in Dental Science

Descriptions of the Indianapolis campus's Allied Dental Programs (dental assisting certificate and A.S. in dental hygiene) are included not only in this bulletin but also in the School of Dentistry Bulletin. Persons with an interest in applying to, or learning more about, these two programs should obtain a copy of the School of Dentistry Bulletin for a full account of the school's rules, policies, fees, curricula, courses, or other matters.

*Information presented in this bulletin pertains to Allied Dental Programs on the Indianapolis campus only. Allied Dental Programs also are offered at several other IU campuses, accordingly: the dental assisting certificate and dental hygiene associate's degree programs are available at the Fort Wayne, Gary, and South Bend campuses; the bachelor's degree program for dental hygienists is offered at Fort Wayne; and an associate degree program in dental laboratory technology is offered only at Fort Wayne. Students interested in programs at Fort Wayne, Gary, and South Bend should check with counselors on those campuses for specific requirements, which may vary from those at Indianapolis.

For information about the other degree programs listed above (B.S., D.D.S., M.S.D., M.S., and Ph.D.), see the School of Dentistry Bulletin. Requests for bulletins should be directed to:

Office of Records and Admissions
Indiana University School of Dentistry
1121 West Michigan Street
Indianapolis, IN 46202-5186
Telephone: (317) 274-8173
E-mail: ds-stdnt@iupui.edu

Allied Dental Programs

Periodontics and Allied Dental Programs Chair and Professor of Periodontics E. Brady Hancock

Allied Dental Programs is a title that serves as an umbrella primarily for three areas of study for persons seeking careers associated with the profession of dentistry—dental assisting, dental hygiene, and dental laboratory technology. The Indianapolis campus offers programs in dental assisting and dental hygiene; both are housed in the school's Department of Periodontics and Allied Dental Programs.

Dental Hygiene

Director and Associate Professor Nancy A. Young
Chairperson of Periodontics and Allied Dental Programs and Professor E. Brady Hancock

Professors Mark E. Mallatt, Byron L. Olson, Gail F. Williamson, Susan L. Zunt

Associate Professors Charles O. Hazelrigg, Steven H. Larsen, Don-John Summerlin

Clinical Associate Professors Pamela A. Rettig, David C. Vandersall

Assistant Professors R. Hunter Rackley Jr., Lewis B. Spear

Clinical Assistant Professors Patricia A. Capps, Lorinda L. Coan, Elizabeth A. Hughes, Sybil S. Niemann

Visiting Clinical Assistant Professor Joyce C. Hudson

Instructors Rodney J. Eccles, Peggy A. Fabiani, Lisa L. Falls, Kay S. Hinshaw, Katie A. Lazard, Fariborz B. Nasser, James M. Oldham, Sharon A. Querry, Angel J. Reed, Stephanie L. Schafer, Wendy S. Smith, Norman L. Stump, Laverne C. Whitmore

Clinical Lecturers Melinda L. Meadows, Sally I. Phillips

The dental hygienist is a member of the dental health team providing educational, preventive, and therapeutic oral health services. Employment opportunities may be available in private dental practice, hospitals, public health, educational institutions, and research. The Indianapolis-based associate's degree program in dental hygiene is two academic years in length, and is composed of a core curriculum of 27 courses presented over four semesters and one summer session. All courses are mandatory.

The program prepares the graduate to:

1. master and apply knowledge of the basic, social, and dental sciences to all aspects of patient care delivery and comprehensive health care programs;
2. deliver quality comprehensive dental hygiene services to patients within a variety of health delivery systems;
3. communicate effectively with other health care professionals in coordination and provision of care;
4. become effective communicators and advocates of oral health and disease prevention to achieve positive behavior changes in the population;
5. initiate, design, implement, and evaluate community dental health care programs;
6. employ problem-solving and decision-making skills to provide dental health services for community-based programs;
7. develop skills in evaluating research relevant to dental hygiene practice;
8. be aware of and responsive to changes in dental health care; and
9. qualify for and seek admission to bachelor's-level programs.

Admission Requirements

Required prerequisite courses may be taken at any accredited college or university. They include one semester each of English composition, chemistry with laboratory, human anatomy, human physiology, psychology, sociology, and public speaking; and two semester courses in arts and humanities. To learn which is the appropriate chemistry course, contact the Office of Records and Admissions at the School of Dentistry. Remedial courses may not be used to fulfill this requirement. All applicants must maintain a minimum grade point average of 2.0 (on a 4.0 scale) to be considered for admission to the program, and applicants must earn a minimum grade point average of 2.5 in the prerequisite science courses (inorganic chemistry, human anatomy, and human physiology). Courses taken at institutions other than Indiana University must show a minimum grade of C to be accepted as transfer credit by Indiana University. In addition, all required courses are to be completed by June of the year in which the applicant wishes to enter the program.

A personal interview with members of the dental hygiene admissions committee is scheduled for all applicants with a grade point average of at least 2.5.

All applications and supporting materials are to be submitted by February 1. Applications may be obtained by contacting the dental school's Office of Records and Admissions. Class size is limited, and there are more qualified applicants than can be accepted each year. All applicants are encouraged to consult with the specific program directors for pre-dental hygiene counseling. Selections are made on an individual basis, upon appraisal of the applicant's established record and potential for development.

Tuition and Ancillary Fees

For information about tuition and ancillary fees, including mandatory health insurance coverage, contact the School of Dentistry's Office of Records and Admissions.

Core Courses for the Professional Curriculum for Dental Hygienists

H204 Periodontics (1 cr.) Study of the normal periodontium at the clinical, histologic, and biochemical levels; procedures involved in carrying out a comprehensive periodontal examination and performing a periodontal prophylaxis.

H205 Medical and Dental Emergencies (1 cr.) A study in emergency situations in the dental office, including predisposing factors and drugs, and treatment to include the support of the cardiopulmonary system.

H206-H207 General Pathology I and II (1-1 cr.) Mechanisms of disease at the cellular, organ, and systemic levels with special references to specific disease processes; includes general concepts, terminology, and pathology of organ systems.

J210 Microbiology and Immunology (4 cr.) P: N261, C101-C102, and N217, or equivalent. For pre-nursing, allied health sciences, and dental hygiene students; others by consent of instructor. Consideration of immunology and host-defense mechanisms, and pathogenic bacteria, viruses, fungi, and parasites in human disease. Laboratory exercises include microbial biology, microscopy, asepsis, pure culture, identification, antimicrobial agents, viral hemagglutination, representative immunological reactions. There are three hours of lecture and two hours of laboratory exercises each week in a 15-week course.

H214 Oral Anatomy (3 cr.) A study of the morphology, structure, and function of deciduous and permanent teeth and surrounding tissues, also including osteology of the maxilla and mandible, nerve and vascular supply of teeth, and muscles of mastication, with reinforcing laboratory procedures and clinical application.

H215 Pharmacology and Therapeutics: First Year (2 cr.) Actions and uses of drugs and theory of anesthetics; emphasis on drugs used in dentistry.

H216 Chemistry and Nutrition: First Year (3 cr.) Specific ideas in chemistry are correlated with working principles in dentistry—previous knowledge of chemistry assumed.

H217 Preventive Dentistry: Second Year (1 cr.) Detection and prevention of dental disease; included is a study of dental surveys, dental indices, and fluoride therapy.

H218 Fundamentals of Dental Hygiene: First Year (4 cr.) An introduction to the dental and dental hygiene profession, including the basic didactic and laboratory/clinic practice for the performance of dental hygiene services.

H219 Clinical Practice I (4 cr.) Performance of dental hygiene services in various clinical settings. Included is didactic instruction and application of dental hygiene procedures for providing patient care and an introduction to oral diagnosis.

H221 Clinical Dental Hygiene Procedures (1-3 cr.) Clinical assignment for instruction and experience in performing dental hygiene services.

H224 Oral Histology and Embryology (1 cr.) Histological aspects of the tooth and periodontium: embryologic development of the face and neck.

H242 Introduction to Dentistry (1 cr.) An overview of the specialties of dentistry with specific lectures on management of the child patient, cavity classification and nomenclature, the space maintenance concept, patient motivation, and auxiliary involvement with the geriatric patient.

H301-H302 Clinical Practice II-III (5-5 cr.) Continued performance of dental hygiene services in various clinical settings. Included are didactic instruction and clinical application of dental hygiene services for providing patient care.

H303 Radiology (1 cr.) Principles of radiation production, placement of intraoral film, proper exposure and processing of film, radiation safety, and interpretation of radiographs.

H304 Oral Pathology: Second Year (2 cr.) Developmental abnormalities and acquired disorders of teeth and surrounding structure.

H305-H306-H307 Radiology Clinic I-II-III (1-1-1 cr.) Clinical application of intraoral and extraoral radiographs.

H308 Dental Materials: First Year (2 cr.) Composition and physical and chemical properties of materials used in dentistry.

H311 Dental Health Education (3 cr.) An introduction to basic communication and motivation skills, instructional objectives, learning theory, evaluation of educational materials, and special needs patients.

H321 Periodontics (1-2 cr.) A study of periodontal disease, including the anatomy, classification, etiology, treatment, and relationship to systemic conditions.

H344 Senior Hygiene Seminar (2 cr.) Ethics, jurisprudence, and practice management concepts, including a study of state practice acts, dental hygiene employment opportunities, recall systems, and current trends in the dental hygiene profession.

H347 Community Dental Health (4 cr.) Principles and practice of program planning, implementation, and evaluation for community and school dental health programs.

E351 Advanced Dental Materials for Dental Auxiliaries (2 cr.) Lecture and laboratory course designed to teach additional concepts of dental materials and their use in intraoral techniques. Included is instruction in dental auxiliary utilization principles and the manipulation of dental materials used in delegated intraoral functions.

Dental Assisting

Director and Clinical Assistant Professor

Patricia A. Capps

Executive Associate Dean, Associate Dean and Professor

Chris H. Miller

Professor

Gail F. Williamson

Assistant Professor

Paul A. Zitterbart

Clinical Assistant Professors

Matthew C. Moeller, Sybil S. Niemann

Clinical Lecturer

Karen M. Beard

Instructors

Sheri R. Alderson, Teresa A. Macauley, James M. Oldham, Norman L. Stump

The dental assisting program covers one academic year (two semesters) and includes approximately 1,000 hours of lecture, laboratory, and clinical instruction. In addition to 17 mandatory courses in the core curriculum, an elective course in expanded restorative functions is offered in the summer session immediately following the academic year.

The program prepares the graduate to:

1. integrate knowledge of the basic, social, and dental sciences in assessing and performing dental assisting procedures;
2. assist the dentist in the comprehensive treatment and education of patients, serving as an integral part of the dental health care team;
3. perform a full range of dental assisting functions, as defined by the American Dental Association, in a variety of dental practice settings;
4. employ decision-making and communications skills in providing educational and health care services to special population groups in the community; and
5. establish learning habits that will lead to the graduate's lifelong pursuit of knowledge through continuing education and other relevant sources of information.

Admission Requirements

Candidates for admission to the program must be high school graduates with a minimum grade point average of 2.0 (on a 4.0 scale) or the GED equivalent. They must submit scores for the Scholastic Aptitude Test (SAT) or the American College Test (ACT), a transcript of high school credits, and any credits received above this level. High school courses in biology and chemistry are strongly recommended. Students who successfully complete the program are eligible to take the Dental Assisting National Certificate Examination.

Requests for application forms or other information should be directed to:

Director of Dental Assisting
Periodontics and Allied Dental Programs
Indiana University School of Dentistry
1121 West Michigan Street
Indianapolis, IN 46202-5186
Telephone: (317) 274-4407

Applications must be submitted to the director of dental assisting by June 10; those received after May 15 will be considered on a space-available basis.

Tuition and Ancillary Fees

For information about tuition and ancillary fees, including mandatory health insurance coverage, contact the director of dental assisting.

Core Courses for the Professional Curriculum for Dental Assistants

A110 Oral Histology and Embryology (1 cr.)

Histological aspects of the tooth and periodontium: embryologic development of the face and neck.

A111-A113 Oral Pathology, Physiology, Anatomy I-II (2-2 cr.)

An overview of the structures, functions, and diseases of the human body, including basic cells, tissues, organs, and organ systems, with specific emphasis on diseases of the face and mouth.

A112 Dental and Medical Emergencies and Therapeutics (2 cr.)

A course including recognition and clinical experience of systemic emergencies. Comprehensive study of the physiological, toxicological, and therapeutic effects of drugs on living organisms, with emphasis on their rational application in the treatment of disease. Content includes discussions of drugs that are widely prescribed by physicians and dentists.

A114 Oral Anatomy (3 cr.) A study of the morphology, structure, and function of deciduous and permanent teeth and surrounding tissues, also including osteology of the maxilla and mandible, nerve and vascular supply of teeth, and muscles of mastication, with reinforcing laboratory procedures and clinical application.

A116 Introduction to Dentistry (1 cr.)

An overview of the specialties of dentistry with specific lectures on management of the child patient, cavity classification and nomenclature, the space maintenance concept, patient motivation, and auxiliary involvement with the geriatric patient.

A121 Microbiology and Asepsis Technique (1 cr.)

An overview of microbiological aspects of health and disease with emphasis on sterile procedures and disinfection techniques.

A131-A132 Dental Materials I-II (2-2 cr.)

A course designed to acquaint the student with the basic mechanical, physical, and chemical properties of dental materials and the effect of manipulation procedures on these properties. The exact role of properties in the usage and clinical behavior of materials is stressed. Also, certain biological considerations are covered.

A141 Preventive Dentistry and Nutrition (2 cr.)

Etiology of prevalent oral diseases and their preventions with particular emphasis on plaque, plaque control, and fluorides. The effects of major nutrients on the physiologic body processes; applied nutrition in dental caries and periodontal disease. Clinical and laboratory experiences.

A151 Radiology Clinic I (2 cr.)

The principles of radiation production, theories and techniques of radiographic imaging, film processing and mounting, radiation safety, and radiographic interpretation are studied in this didactic and preclinical course.

A152 Radiology Clinic II (1 cr.) Clinical experience in the placing, exposing, processing, evaluating, and mounting of intraoral and extraoral dental radiographs. Practical application of radiation safety measures is required in the clinical setting.

A161 Behavioral Science (1 cr.)

An introduction to psychology applicable in the dental office, emphasizing communication and personal relationships; the role of the dental assistant as seen by the dentist, auxiliaries, and patient. Attitude, personality, motivation, and habit formation are discussed from a dental perspective.

A162 Oral and Written Communication (2 cr.)

Instruction and practice in gathering and organizing material for written and oral presentation. Individual and group projects in communication, including table clinics, posters, and professional articles for publication.

A171 Clinical Science I (4 cr.)

A core course in dental nomenclature; historical developments in dentistry; role of assistant as member of dental health team; dental specialties; charting the mouth; identification and utilization of instruments and equipment; principles of dental procedures and instrument transfer.

A172 Clinical Science II (3 cr.)

Clinical chairside experience in extramural assignments with a seminar to provide opportunities for students to share experiences.

A182 Practice Management, Ethics, and Jurisprudence (2 cr.)

Dental practice management in reception procedures, appointment control, and clinical and financial records; purchasing and inventory control. Study of the legal and ethical aspects of dentistry.

Elective Course

A190 Expanded Restorative Functions (4 cr.)

Laboratory and clinical course in the techniques for rubber dam application; study model impressions; matrix placement; placement and removal of treatment restorations; placement, carving, and finishing of amalgam restorations; placement and finishing of resin, composite, and silicate restorations.

Administration

Dean

Lawrence I. Goldblatt

Executive Associate Dean

Chris H. Miller

Associate Deans

James L. McDonald Jr., Dental Education

Chris H. Miller, Academic Affairs and Graduate Education

Margot L. Van Dis, Student Affairs

George P. Willis, Clinical Affairs

Chairs

Cecil E. Brown Jr., Department of Endodontics (Acting)

Arden G. Christen, Department of Oral Biology (Acting)

E. Steven Duke, Department of Restorative Dentistry and Indiana Dental Association Endowed Chair in Restorative Dentistry

E. Brady Hancock, Department of Periodontics and Allied Dental Programs

James K. Hartsfield Jr., Department of Oral Facial Development
 William C. Hine Jr., Department of Oral Surgery and Hospital Dentistry (Acting)
 Jack E. Schaaf, Department of Oral Pathology, Medicine, and Radiology (Acting)
 Domenick T. Zero, Department of Preventive and Community Dentistry

Faculty

(The following list includes the names of the dental school's administrators as well as faculty associated with the Allied Dental Programs. See the School of Dentistry Bulletin for a complete list of the dental faculty.)

Alderson, Sheri R., *Instructor in Dental Assisting* (B.S., Indiana University, 1979)
 Beard, Karen M., *Clinical Lecturer in Dental Assisting* (M.S., Indiana University, 2001)
 Brown, Cecil E. Jr., *Acting Chairperson of Endodontics; Associate Professor of Endodontics; Director of Graduate Endodontics* (D.D.S., University of Tennessee, 1959)
 Capps, Patricia A., *Clinical Assistant Professor and Director of Dental Assisting* (M.S., Ball State University, 1997)
 Christen, Arden G., *Acting Chairperson of Oral Biology; Professor of Oral Biology; Adjunct Professor of Preventive and Community Dentistry; School of Dentistry; Adjunct Professor of Public Health, School of Medicine* (D.D.S., University of Minnesota, 1956)
 Coan, Lorinda L., *Clinical Assistant Professor of Dental Hygiene* (B.S., Indiana University, 1996)
 Duke, E. Steven, *Chairperson of Restorative Dentistry; Indiana Dental Association Endowed Chair in Restorative Dentistry; Professor of Operative Dentistry* (D.D.S., Loyola University of Chicago, 1975)
 Eccles, Rodney J., *Instructor in Dental Hygiene* (D.D.S., Indiana University, 1985)
 Fabiani, Peggy A., *Instructor in Dental Hygiene* (B.S., Indiana University, 1998)
 Falls, Lisa L., *Instructor in Dental Hygiene* (B.S., Indiana University, 2000)
 Goldblatt, Lawrence I., *Dean of Dentistry; Professor of Oral Pathology* (D.D.S., Georgetown University, 1968)
 Hancock, E. Brady, *Chairperson of Periodontics and Allied Dental Programs; Professor of Periodontics* (D.D.S., University of Illinois, 1967)
 Hartsfield, James K., Jr., *Chairperson of Oral Facial Development; Director of the Division of Oral Facial Genetics; Professor of Oral Facial Genetics and of Orthodontics, School of Dentistry; Professor of Medical and Molecular Genetics, School of Medicine* (Ph.D., University of South Florida, 1993; D.M.D., Medical University of South Carolina, 1981)
 Hazelrigg, Charles O., *Associate Professor of Pediatric Dentistry and of Dental Hygiene* (D.D.S., Indiana University, 1970)
 Hine, William C. Jr., *Acting Chairperson of Oral Surgery and Hospital Dentistry; Clinical Assistant Professor of Hospital Dentistry; Director of Grassy Creek Clinic* (D.D.S., Indiana University, 1996)

Hinshaw, Kay S., *Instructor in Dental Hygiene* (B.S., Indiana University, 1964)
 Hudson, Joyce C., *Visiting Clinical Assistant Professor of Dental Hygiene* (M.S., University of Missouri, 1982)
 Hughes, Elizabeth A., *Clinical Assistant Professor of Dental Hygiene* (M.S., Indiana University, 2000)
 Larsen, Steven H., *Associate Professor of Microbiology and Immunology, School of Medicine* (Ph.D., University of Wisconsin, 1974)
 Lazard, Katie A., *Instructor in Dental Hygiene* (B.A., University of Arizona, 1982)
 Macauley, Teresa A., *Instructor in Dental Assisting* (B.S., Indiana University, 2001)
 Mallatt, Mark E., *Professor of Preventive and Community Dentistry and of Dental Hygiene* (D.D.S., Indiana University, 1975)
 McDonald, James L., Jr., *Associate Dean for Dental Education; Professor of Preventive and Community Dentistry* (Ph.D., Indiana University, 1968)
 Meadows, Melinda L., *Clinical Lecturer in Dental Hygiene, Oral Facial Development; Adjunct Lecturer in Dental Hygiene, Periodontics and Allied Dental Programs* (B.S., Indiana University, 2000)
 Miller, Chris H., *Executive Associate Dean; Associate Dean for Academic Affairs and Graduate Education; Professor of Oral Microbiology, School of Dentistry; Professor of Microbiology and Immunology, School of Medicine* (Ph.D., University of North Dakota, 1969)
 Moeller, Matthew C., *Clinical Assistant Professor of Operative Dentistry; Director of Comprehensive Care Clinic* (D.D.S., Indiana University, 1985)
 Nasser, Fariborz B., *Instructor in Operative Dentistry and Dental Hygiene* (D.D.S., Indiana University, 1994)
 Niemann, Sybil S., *Clinical Assistant Professor of Allied Dental Programs* (D.D.S., Indiana University, 1966)
 Oldham, James M., *Instructor in Dental Hygiene* (D.D.S., Indiana University, 1983)
 Olson, Byron L., *Professor of Preventive and Community Dentistry, School of Dentistry; Professor of Biochemistry and Molecular Biology, School of Medicine* (Ph.D., Case Western Reserve University, 1970)
 Phillips, Sally L., *Clinical Lecturer in Dental Hygiene* (B.S., Indiana University, 1981)
 Querry, Sharon A., *Instructor in Dental Hygiene* (B.S., Indiana University, 1998)
 Rackley, R. Hunter, Jr., *Assistant Professor of Dental Hygiene* (M.H.E., Medical College of Georgia, 1977)
 Reed, Angel J., *Instructor in Dental Hygiene* (B.S., Indiana University, 1990)
 Rettig, Pamela A., *Clinical Associate Professor of Dental Hygiene* (M.S., University of Missouri, 1993)
 Schaaf, Jack E., *Acting Chairperson of Oral Pathology, Medicine, and Radiology; Associate Professor of Dental Diagnostic Sciences* (D.D.S., Indiana University, 1975)
 Schafer, Stephanie L., *Instructor in Dental Hygiene* (B.S., Indiana University, 2000)
 Smith, Wendy S., *Instructor in Dental Hygiene* (M.S.D., Indiana University, 1998)
 Spear, Lewis B., *Assistant Professor of Dental Hygiene* (D.D.S., Indiana University, 1960)

Stump, Norman L., *Instructor in Operative Dentistry and Dental Hygiene* (D.D.S., Indiana University, 1979)
 Summerlin, Don-John, *Associate Professor of Oral Pathology* (D.M.D., University of Alabama, 1985)
 Vandersall, David C., *Clinical Associate Professor of Periodontics* (D.D.S., Case Western Reserve University, 1961)
 Van Dis, Margot L., *Associate Dean for Student Affairs; Professor of Dental Diagnostic Sciences* (D.D.S., University of Michigan, 1980)
 Whitmore, Laverne C., *Instructor in Dental Hygiene* (B.S., Indiana University, 2000)
 Williamson, Gail E., *Professor of Dental Diagnostic Sciences* (M.S., Indiana University, 1982)
 Willis, George P., *Associate Dean for Clinical Affairs; Associate Professor of Operative Dentistry* (D.D.S., Indiana University, 1979)
 Young, Nancy A., *Associate Professor and Director of Dental Hygiene* (M.Ed., Temple University, 1981)
 Zero, Domenick T., *Chairperson and Professor of Preventive and Community Dentistry; Director of Oral Health Research Institute* (D.D.S., Georgetown University, 1975)
 Zitterbart, Paul A., *Assistant Professor of Preventive and Community Dentistry* (D.D.S., Indiana University, 1977)
 Zunt, Susan L., *Professor of Oral Pathology* (D.D.S., Case Western Reserve University, 1977)

INDIANA UNIVERSITY SCHOOL OF EDUCATION



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Contents

155 History of the School of Education	164 Bachelor of Science in Education with Middle School/High School Teaching License
155 Mission of the School of Education	165 All-Grade Licensure Programs
155 Accreditation	
155 Program Framework	165 Statement on Graduate Programs
155 Principles of Teacher Education	165 Post-Baccalaureate Licensure Programs
	165 Graduate Degree Programs
156 Program Format	166 IUPU Columbus
156 Indiana License Types and Coverage	
157 Requirements for Admission to the Undergraduate Program	166 Undergraduate Courses in the School of Education
157 Transfer Credit Policy	
157 Admission to the Teacher Education Program	169 School of Education Administrative Officers and Faculty
157 Academic Expectations	
157 Student Responsibilities	
157 Specific Degree Requirements	
158 Assessment in the Teacher Education Program	
158 Academic Policies and Procedures	
158 Probation, Dismissal, and Reinstatement	
158 Grading Policy	
158 Pass/Fail Option	
158 Incomplete Grades	
158 Withdrawal from Courses	
159 FX Policy	
159 Determination of GPA	
159 Grade Change Appeal	
159 Good Standing	
159 Bulletin Designation	
159 Other Special School or Program Requirements, including Graduation Policies	
159 Revalidation of Professional Education Courses	
159 Campus Residency Requirement	
159 Correspondence Courses	
159 Temporary and Permanent Intercampus Transfers	
159 Honors Program	
159 Undergraduate Students in Graduate Courses	
159 Graduation	
160 Application for Licensure	
160 Career Services	
160 School Awards and Scholarships	
160 School Organizations	
160 General Education	
161 Communication and Quantitative Skills	
161 Critical Thinking	
161 Understanding Society and Culture	
161 Depth, Breadth, and Adaptiveness	
161 Values and Ethics	
161 Integration/Application	
161 Suggested Sequence for General Education	
161 Professional Education	
162 Student Teaching	
162 Degree Tracks and Program Requirements	
162 Bachelor of Science in Early Childhood Education	
162 Bachelor of Science in Education/Elementary Education	

History of the School of Education

Indiana University has been preparing teachers since 1851. The first “Department of Pedagogy” was part of what is now the College of Arts and Sciences in Bloomington. In 1908 a formal School of Education was established, and in 1923 the school became autonomous from the College of Arts and Sciences. The first B.S. in education was awarded in 1925.

Education classes have been offered in Indianapolis since 1914, when the Extension Division of Indiana University was founded. Enrollments and course offerings in Indianapolis grew steadily and by 1969 it was possible to earn a bachelor’s degree in education at Indianapolis. In 1969, regional campuses of Indiana University and Purdue University merged to form IUPUI. In 1972 the IUPUI Division of Education was formally established with offices in the Marrott Building on North Meridian Street. In 1975 the School of Education in Bloomington and the Division of Education in Indianapolis merged to become a single School of Education with two campuses, and the School of Education at IUPUI moved into a new Education/Social Work Building at 902 West New York Street.

Today, Indiana University’s School of Education is one of America’s most respected educational institutions for the preparation of teachers, administrators, and specialists in all areas of education. The School of Education has full equality with the other professional schools of the university and grants the degrees of Bachelor of Science in Early Childhood Education, Bachelor of Science in Education, Master of Science in Education, Specialist in Education, and Doctor of Education. Students may earn the B.S. degree in education entirely at IUPUI. IUPUI offers select graduate programs in education and enrolls a growing number of doctoral students. The Indiana University School of Education at IUPUI awards nearly 300 degrees annually, and boasts well over 10,000 alumni.

Mission of the School of Education

The mission of the Indiana University School of Education at IUPUI is to offer challenging undergraduate and graduate programs that prepare reflective, caring, and highly skilled professionals for diverse educational settings. Through on-going collaboration and interdisciplinary partnerships, we are dedicated to advancing teaching and learning practices, informing educational theory and research, and influencing state and federal education policy.

Accreditation

The School of Education is accredited by the National Council for Accreditation of Teacher Education

(NCATE) and by the North Central Association of Colleges and Secondary Schools. In addition, the Indiana Professional Standards Board has approved all teacher education programs offered through the School of Education at IUPUI.

Title II

In 1998, the U.S. Congress enacted an amendment to the Higher Education Act that required a testing process for all teacher education programs. For the 1999–2000 cohort of program completers, the School of Education at IUPUI had an institutional pass rate of 90 percent on aggregate basic skills tests and a 98–100 percent aggregated pass rate on content area tests.

Program Framework

The School of Education has integrated the campus “Principles of Undergraduate Learning” and the various state and national frameworks for beginning teachers into the IUPUI “Principles of Teacher Education.” These Principles provide the conceptual framework for all undergraduate degree and licensure programs.

Principles of Teacher Education

Principle 1: Conceptual Understanding of Core Knowledge

Definition: The ability of teachers to communicate and solve problems while working with the central concepts, tools of inquiry, and structures of different disciplines. For prospective secondary teachers this means developing rich expertise within their chosen discipline.

This principle is demonstrated by the ability to:

- Set learning goals that reflect command of the subject matter.
- Design and implement instruction that develops students’ conceptual frameworks.
- Interact with learners, providing accurate and in-depth information.
- Improve learners’ communication and quantitative skills through meaningful learning engagements.
- Model effective communication and problem solving.
- Use a variety of media and technology.
- Distinguish high quality educational materials.
- Write and speak with clarity.

Principle 2: Reflective Practice

Definition: The ability of teachers to step outside of the experiences that make up teaching and to analyze and critique from multiple perspectives the impact of these experiences and contexts.

This principle is demonstrated by the ability to:

- Explain the principles that guide teaching.
- Demonstrate teaching as an inquiry process, collecting and analyzing data about students’ learning and generating plans designed to support student learning.

- Entertain multiple perspectives.
- Self-assess from multiple perspectives.
- Collect information through observation of classroom interaction.
- Assess learners’ development and knowledge.
- Use assessment processes appropriate to learning outcomes.
- Invite learners to employ multiple approaches, solutions, and diverse pathways to learning.

Principle 3: Teaching for Understanding

Definition: The ability of teachers to draw on their knowledge and frameworks to plan, implement, and assess effective learning experiences and to develop supportive social and physical contexts for learning.

This principle is demonstrated by the ability to:

- Set clear goals for learning experiences.
- Establish suitable classroom routines.
- Provide learners with meaningful choices.
- Create a collaborative, supportive social environment.
- Engage learners in generating knowledge and testing hypotheses.
- Help learners articulate their ideas and thinking processes.
- Use multiple strategies that engage students in active learning.
- Encourage learners to see, question, and interpret ideas from diverse perspectives.
- Convince learners to assume responsibility for themselves and for their own learning.
- Motivate all children to learn.
- Create an inviting, interactive learning environment.
- Ask questions that promote learning.
- Build on children’s prior knowledge.

Principle 4: Passion for Learning

Definition: The ability of teachers to continually develop their own complex content and pedagogical knowledge and to support the development of students’ habits of continual, purposeful learning.

This principle is demonstrated by the ability to:

- Synthesize and teach complex concepts and networks of knowledge.
- Learn about learners and teaching through reflective practice.
- Recognize and support learners’ intellectual, social, and personal growth.
- Support learners with special needs.
- Engage learners in multiple ways of knowing.
- Convey reasonable, but high and positive expectations for learner achievement.
- Integrate the disciplines to create meaningful curriculum.
- Give learners opportunities to solve community problems and to make authentic choices.
- Provide learners with access to learning opportunities.
- Seek help from other professionals when needed.
- Engage in personal inquiry to construct content knowledge and skills.

Principle 5: Understanding School in the Context of Society and Culture

Definition: The ability of teachers to value and to teach about diversity; to recognize the impact of social, cultural, economic, and political systems on daily school life; and to capitalize on the potential of school to minimize inequities.

This principle is demonstrated by the ability to:

- Act as a change agent.
- Communicate in ways that demonstrate a sensitivity to a broad range of diversity.
- Mediate when learners need help to resolve problems or change attitudes.
- Collaborate with parents, teachers, administrators, and other community members involved in the lives of students.
- Embed knowledge of community into teaching.
- Challenge negative attitudes.

Principle 6: Professionalism

Definition: The ability of teachers to be active contributors to professional communities that collaborate to improve teaching and student achievement by developing shared ethics, standards, and research-based practices.

This principle is demonstrated by the ability to:

- Articulate the ethical principles guiding professional conduct.
- Demonstrate and document standards-based practice in the classroom.
- Stay current in terms of research on pedagogy and content areas.
- Participate in professional organizations and resource networks beyond the school.
- Dialogue with colleagues about issues that are complex and difficult.
- Give presentations for other professionals.
- Initiate activities such as teacher research, study groups, and coaching to improve the teaching and learning of a school community.
- Promote positive attitudes.
- Facilitate decision making.
- Operate on democratic principles.

Program Format

The undergraduate teacher education program is called “Learning to Teach/Teaching to Learn.” The program has several distinct elements:

1. A recommended sequence of *general education*,
2. A *professional education* component, and
3. *Student teaching* or other supervised practicum experience.

For secondary education majors or those pursuing license to teach at the secondary level, preparation in the *teaching area* or an academic major constitutes a fourth distinct program component. Each component is briefly described below; additional detail is provided later in the bulletin.

General Education

“General education” refers to courses and other experiences that lay the foundation for IUPUI students to evidence progress toward the IUPUI “Principles of Undergraduate Learning.” There is a focus on building skills in written and oral communication, information technology, inquiry, science, literature, quantitative reasoning, and both global and democratic perspectives.

The general education requirements for elementary and early childhood majors are identical, and define the strong generalist preparation that is imperative for elementary teachers and early childhood educators. Students pursuing initial license at the secondary level are expected to fulfill the general education requirements articulated by the major department.

Students are encouraged to complete a program of general education by enrolling in course clusters or learning communities designated for education majors whenever they are available. In particular, students are urged to follow the general education template for the first 30 credit hours of their program. The sequence has been planned to provide the strongest foundation in learning and to build the most powerful connections between the content of the individual courses.

Professional education The professional education component of “Learning to Teach/Teaching to Learn” develops the knowledge, disposition, and skills required for entry to the profession. Some courses focus on knowledge, dispositions, and skills that underlie all teacher education regardless of the developmental focus. Other courses and field experience focus on what it takes to promote effective teaching and learning at a particular developmental level or in a particular school setting. At IUPUI, the professional education component (41-42 credit hours) is not a collection of isolated courses, but rather a carefully articulated program of study. Courses are taken in blocks and in a prescribed order.

Teaching Area Candidates pursuing a secondary (middle school/high school) or all-grades license must meet the content standards for the disciplines or subject areas they intend to teach. Typically, this is done by completing 36-51 credit hours in a major with appropriate supporting areas. Elementary and early childhood majors do not have a teaching area per se. However, their general education component includes a requirement for an academic concentration in a selected area of study. The concentration is intended to be responsive to the interests and talents of individual students and to the public expectation that all teachers will have some area of particular expertise. Course lists for concentrations are available from Education Student Services.

Student teaching The 16 credit hours of student teaching and the accompanying integrated seminar represents the culminating experience in the Learning to Teach/Teaching to Learn program. By assuming full responsibility for a class of students, candidates demonstrate their achievement of standards, and reflect both on student learning and on their own effectiveness as teachers.

At IUPUI, all students are prepared to teach at two developmental levels and can expect to complete two separate student teaching assignments.

Indiana License Types and Coverage

IUPUI’s educator preparation programs at both the graduate and undergraduate level were developed to meet the license framework adopted by the Indiana Professional Standards Board (IPSB) in 1999. The new framework establishes requirements not in terms of courses to be taken, but rather in terms of the standards that program graduates are expected to meet. The license framework addresses the principles set forth by the Interstate New Teacher Assessment and Support Consortium (INTASC) and includes both

content standards for different subjects and teaching areas, and *developmental standards* associated with particular educational settings (early childhood, elementary, middle school, high school).

IUPUI offers programs leading to the following licenses:

Early Childhood License

Preparation to teach preschool through second grades

Developmental Standards: *Early Childhood*

School Settings: *Preschool* and *Elementary*; *Primary*

Content Standards: *Generalist*; *Early Childhood* and *Elementary*; *Primary Generalist*

Elementary License

Preparation to teach kindergarten through sixth grades

Developmental Standards: *Early Childhood* and *Middle Childhood*

School Settings: *Elementary*; *Primary* and *Elementary*; *Intermediate*

Content Standards: *Elementary*; *Primary Generalist* and *Elementary*; *Intermediate Generalist*

Middle School/High School Content Area License

Preparation to teach sixth through twelfth grades in a particular content area

Developmental Standards: *Early Adolescence* and *Adolescence/Young Adult*

School Setting: *Middle School/ Junior High School* and *High School*

Content Standards: *Language Arts*, *Social Studies*, *Science*, *Mathematics*, or *Foreign Language*

All-Grades License

Preparation to teach kindergarten through twelfth grades

Developmental Standards: *Early Childhood*, *Middle Childhood*, *Early Adolescence*, and *Adolescence/Young Adult*

School Settings: *Elementary*; *Primary*, *Elementary*; *Intermediate*, *Middle School/ Junior High School*; and *High School*

Content Standards: *Fine Arts*, *Health* and/or *Physical Education*

Exceptional Needs License

Preparation to teach children with special needs

The program requires that this license be coupled with one of the licenses above. The developmental standards and school setting of the license will be the same as the partner license.

Content Standards: *Exceptional Needs*

Planning is underway for a program leading to licensure in English as a New Language. The ENL license will be coupled with an early childhood, elementary, middle school/high school, or all grades license.

The School of Education at IUPUI also offers programs at the graduate level that lead to the following licenses:

- School Services (Counselor)
- Building Level Administrator
- District Level Administrator

Requirements for Admission to the Undergraduate Program

Entering students with strong academic credentials who indicate education as their choice among academic programs may be dually admitted to University College and the School of Education. Students admitted to University College who subsequently make a decision to pursue an education degree or complete a program leading to an initial teaching license may transfer to the School of Education when they attain a minimum 2.5 overall grade point average (GPA). Education majors transferring to IUPUI from other colleges and universities may be dually admitted to the University College and the School of Education if their GPA is 2.5 or better, or admitted to University College if they have not yet achieved a 2.5 overall GPA. Students must attain a 2.5 overall GPA to transfer to the School of Education.

It is important to note that admission to the school does not guarantee admission to the Teacher Education Program. Application to teacher education is a separate process that typically occurs during the second semester of the sophomore year (or during the semester prior to beginning the professional education component of the licensure program).

Transfer Credit Policy

Acceptance of credit from other institutions will be determined by Enrollment Services. After transfer courses have been credited through Enrollment Services, the student should meet with a School of Education academic advisor to determine which transfer courses will fulfill degree requirements for programs in education.

Students in secondary or all-grade programs must have a minimum grade point average (GPA) of 2.5 in the transfer courses that would apply toward their teaching major. Early childhood and elementary majors must earn a GPA of 2.0 or better in any transfer course used to meet general education requirements.

IUPUI's Teacher Education Program—Learning to Teach/Teaching to Learn—is built on a coherent sequence of professional education courses and field experiences. To support program integrity and continuity, students interested in completing a program leading to initial licensure through the School of Education are encouraged to complete the entire professional education component at the IUPUI campus. Requests for transfer credits for professional education courses will be reviewed on an individual basis in consultation with program faculty; feedback will be provided in a timely fashion.

Admission to the Teacher Education Program

Students wishing to earn a license to teach at any developmental level (early childhood, elementary, middle, or high school) must apply to the Teacher Education Program and be formally admitted before they will be authorized to enroll in any professional education courses. The standards for admission to the Teacher Education Program, listed below, apply both to education majors *and* to majors in other schools who are seeking an initial teaching license. A student must:

1. *Attain a minimum overall grade point average (GPA) of 2.5.*
2. *Complete required courses.*
 - Elementary and early childhood majors must achieve a grade of C or higher in ENG W131, ENG W132, a literature elective, GEOL G110, HIST H105, EDUC W200, EDUC Q200, BIOL N100, and MATH M130/132, M136 *or* EDUC N443.
 - Students pursuing a secondary or all-grade license must
 - Achieve a grade of C or higher in ENG W131 and EDUC W200.
 - Complete three-fourths of the general education course requirements, with a minimum GPA of 2.5.
 - Complete at least one-half of the courses in the major, with a minimum GPA of 2.5.
3. *Receive qualifying scores on all sections of the Professional Assessments for Beginning Teachers PRAXIS I: PPST.* See Education Student Services for information about the test and qualifying scores.
4. *Complete a formal application.* Applications for admission to the Teacher Education Program are due early in the semester, the semester before the students want to begin professional education courses (e.g., in February for the fall semester and in October for the spring semester).

Since space is limited and admission is competitive, students interested in Teacher Education are urged to meet application deadlines. The application and supporting information are available from the School of Education home page on the Web at education.iupui.edu.

Academic Expectations

Student Responsibilities

The School of Education has established academic requirements concerning admission, course of study, majors and minors, and campus residence, all of which must be met before a degree is granted. Students are held responsible for understanding the requirements and for meeting the conditions prior to graduation. A student pursuing a secondary (middle school/high school) or all-grades license while enrolled in a degree-granting program in another

school must satisfy requirements of the degree-granting school as well as School of Education requirements for licensure.

Students are encouraged to:

1. Develop a strong foundation for meeting the campus “principles of undergraduate learning” by following the course sequence presented in this bulletin and by enrolling in course clusters or learning communities designated for education majors whenever they are available.
2. Plan a program with an Academic Advisor in the School of Education or with the designated education advisor in University College, and meet with that advisor at least once each semester.
3. Check the IUCARE (INSITE) report at least once each semester (insite.indiana.edu). For questions about IUCARE or accessing INSITE, please see an advisor or visit Education Student Services.
4. Apply for admission to the Teacher Education Program during the semester when program prerequisites will be completed.

Specific Degree Requirements

Students must enroll in a program at the School of Education at IUPUI and meet all of the requirements for that program. For the Bachelor of Science in Education or Early Childhood Education, students must:

1. Meet the regular matriculation requirements of the university.
2. Be admitted to the Teacher Education Program.
3. Complete the requirements for licensure, as outlined in this bulletin.
4. Complete at least 35 credit hours of junior- and senior-level courses (courses numbered 300 or above).
5. Complete at least 30 of the last 60 credit hours required for a specific degree program at IUPUI. These 30 credit hours include student teaching as well as methods courses in the major teaching area.
6. Complete the professional education courses as stipulated in the specific program, and all of the general education and subject-matter courses required for recommendation by Indiana University for an initial teaching license.
7. Complete a minimum of 124 credit hours of academic credit (see specific program requirements). Some programs require additional hours for graduation.
8. Maintain a minimum cumulative grade point average (GPA) of 2.5 in all courses taken at Indiana University.
9. Achieve a minimum grade of C in each professional education class while maintaining a cumulative GPA of 2.5 in professional education courses.
10. Earn a C or better in courses that relate directly to the content taught in the elementary (K-6) curriculum.

Students pursuing a middle/high school or all-grades license must:

1. Meet conditions 1 through 9 above.
2. Achieve a minimum GPA of 2.5 in the teaching area(s).
3. Take some of the course work in the major at IUPUI.

Assessment in the Teacher Education Program

Students recommended for a teaching license by IUPUI will be expected to demonstrate the knowledge, disposition, and skills expected of beginning teachers. It is IUPUI's responsibility to ensure that students recommended for an initial license have met all relevant standards set by the Indiana Professional Standards Board.

The *Learning to Teach/Teaching to Learn Curriculum and Assessment Handbook* outlines assessment procedures employed at different points in the program. In addition to traditional feedback in the form of course grades, students will receive feedback on their performance relative to standards for the teaching profession. Movement through the program will be contingent on satisfactory performance at each assessment point. A student who receives one or more negative indicators on the Block I Rubric or who fails to achieve a passing score on the Block II Performance Task will be notified in writing and advised of options by a Student Assessment Committee of the faculty. As a rule, a student will not advance to Block III course work until he or she is authorized by the Student Assessment Committee. If the student teaching portfolio submitted at the conclusion of the initial student teaching placement does not receive a passing score, the student will receive feedback and have the opportunity to revise and resubmit it after the second student teaching placement.

Prior to graduation, all students must also pass the PRAXIS II test(s) in their area(s) of specialty, while early childhood and elementary education majors must pass an *additional* test in the area of reading. Beginning with students who matriculate in fall semester 2002, only those who maintain an appropriate GPA, pass the tests required by the Indiana Professional Standards Board, and successfully complete all components of the unit assessment system will be recommended to the state for an initial teaching license.

Academic Policies and Procedures

Probation, Dismissal, and Reinstatement

Failure to meet the minimum standards results in academic probation or in dismissal. A cumulative minimum grade point average (GPA) of 2.5 is required to remain in good standing.

Probation

The academic progress of students in the School of Education is reviewed at the close of each semester and summer session; students will receive formal, written notice if they have been placed on probation and are, or may be, subject to dismissal. Students on academic probation have one semester to meet the minimum academic standards before they are dismissed from the school.

Dismissal

Once dismissed, students are placed on the all-university checklist, which means that they may not enroll in courses on any Indiana University campus.

Reinstatement

Once dismissed, the student must wait for at least one semester (not including summer sessions) before applying for readmission. If the student is readmitted, the course load may be restricted or adjusted in the student's best interest. The student should send a letter and completed form petitioning for readmission to:

Assistant Dean for Student Services
School of Education
902 W. New York Street
IUPUI
Indianapolis, IN 46202-5155

Voluntary Withdrawal While on Probation

If a student voluntarily withdraws from the School of Education while on probation, that student may enter another school at the university if the student's grade point average is acceptable to that school. Some schools require an application process. The student may reenter the School of Education in good standing if, by taking academic course work in other divisions or schools of the university, grades have been earned that raise the cumulative grade point average to a minimum of 2.5, and the student has made progress toward fulfilling program requirements.

Stopping Out

Once admitted to the Teacher Education Program, a student who intends to "stop out" of the professional education courses for one or more semesters must notify Education Student Services in writing in order to be guaranteed readmission to the program. Upon reentering the program, the student must meet any new program requirements.

Grading Policy

Pass/Fail Option

Within certain restrictions, students in good standing may choose to take some elective courses or general education courses on a Pass/Fail basis. Instructor approval is not needed for the student to take a course Pass/Fail.

There are two restrictions to the Pass/Fail option:

1. The Pass/Fail option may not be used for any course in a subject in which the student wishes to be certified to teach. That is, all courses in the teaching area (or supporting areas) and all professional education courses must be taken for a letter grade. No courses identified to meet unit expectations for "communication and quantitative reasoning" may be Pass/Fail. Elementary education majors may use the Pass/Fail option only for credit hours over and above the minimum hours required in literature, fine arts, science, or historical inquiry. Secondary and all-grade license candidates may use the Pass/Fail option only for elective credit hours or for courses that satisfy the general education requirements.
2. A maximum of two courses per academic year may be taken on a Pass/Fail basis. The academic

year begins in the fall and includes the following year's summer sessions.

The grade of Pass (P) is assigned no grade points and is not considered in computing the grade point average. A grade of P may not subsequently be changed to a letter grade. A grade of Fail (F) received in course taken with the Pass/Fail option is entered on the transcript, treated as a regular letter grade, and used in computing the grade point average.

The decision to take a class Pass/Fail must be made on or before the end of the first three weeks of class during the regular semester, and on or before the end of the first two weeks in a summer session. Check the *Schedule of Classes* for the exact dates. Appropriate forms are available at Education Student Services, ES 3131.

Incomplete (I) Grades

If a student is not in attendance during the last several weeks of a semester, the instructor may report a grade of Incomplete (I) (indicating that the work submitted is satisfactory but that the entire course has not been completed) *if* the instructor has reason to believe that the absence was beyond the student's control. If this is not a valid assumption, the instructor shall record a grade based on the work submitted to date. The student must have completed 75 percent of the course requirements and must have an I grade contract completed and on file. The time allowed for the removal of an I grade is one calendar year from the date of its initial recording, unless, in exceptional circumstances, the dean of the student's college or school authorizes adjustment of this period. By assigning a grade of I, an instructor implicitly authorizes and requires that the registrar automatically change an I to an F at the end of the appropriate time period if the student fails to complete the course work to the instructor's satisfaction. Both the student and the instructor in whose course the student received the Incomplete will be notified of this change of grade.

Withdrawal from Courses

Withdrawal (W) is not a grade and does not figure in hours of credit or grade point average (GPA) calculations. However, students should be aware that a pattern of repeated withdrawals may affect admission to Teacher Education, student teaching placement, and/or eventual employment.

A student must refer to the *Schedule of Classes* to determine the last date for an automatic W from a class for each semester or summer session. The *Schedule* is available online at registrar.iupui.edu. After the automatic withdrawal date has passed, the instructor and the Assistant Dean of Student Services make a determination whether to assign a W or an F. Ordinarily the only acceptable reason for withdrawal is illness or obligation of employment. Students withdrawing from a class during the second half of a regular semester or summer session may be assigned a W only for compelling nonacademic reasons, and only if the student's work up to that point is passing. It is the student's responsibility to start the withdrawal procedure by getting the form from Education Student Services and securing the appropriate signatures. The application for withdrawal must be processed within 10 days of its receipt.

Important: Students withdrawing from a course to which a Laboratory/Field Experience is linked must withdraw from the Field Experience as well as from the course itself; such a withdrawal is not automatic. Failure to withdraw from both sections may result in a grade of F in the Laboratory/Field Experience.

FX Policy: Policy and Procedure on Course Reenrollment and Recalculation of Student Grade Point Average

The University Faculty Council has stated that:

Any undergraduate who has retaken a course previously failed shall have only the second grade in that course counted in the determination of the overall grade point average by the Office of Records and Admissions. The student's transcript shall record both grades. Any grade point average calculated in accord with this policy shall be marked FX denoting that a grade of F has been replaced by the grade in the course when taken subsequently.

The FX policy can take effect only if the failed course was repeated after the beginning of the academic year 1976-77. The IUPUI School of Education FX policy has been revised, effective since fall 1996. The new policy allows approved undergraduate students seeking their first degree to repeat a maximum of 15 credit hours subject to school/division approval. Students in education must submit a petition form before the FX policy can take effect. Petitions are available from Education Student Services, 3131 Education/Social Work Building.

Determination of GPA

The School of Education uses the grade point average (GPA) indicated on the IUCARE program for all audits, including those for admission to the Teacher Education program, probation and dismissal, and graduation. Students can ascertain their IUCARE grade point average (GPA) with INSITE, available on the Web (insite.indiana.edu).

Note: Only credit hours are transferred to Indiana University. Grades earned at other institutions are disregarded after credit conversion is verified. Only the grades made in courses taken at Indiana University will be used to compute a student's grade point average.

Grade Change Appeal

Students wishing to appeal a grade in any course in the School of Education should follow the IUPUI grade appeal procedure as outlined in this bulletin. Grade appeal forms are available from the Registrar's Office, online from registrar.iupui.edu, or from Education Student Services ES 3131.

A student's request to have a grade in a course offered by the School of Education changed from a grade of F to Withdrawn (W) will be granted if one or more of the following conditions exists:

1. The student has provided official documentation of a medical emergency that prevented the student from attending and officially withdrawing from the course.
2. The student was a first-semester freshman and never attended the class.

All other requests will be denied. If a student feels there were other extenuating circumstances that prevented him or her from attending and/or officially withdrawing from the course, he or she may write a letter of appeal to the Student Services Appeals Committee. Any available official documentation pertaining to the extenuating circumstances should be included with the letter of appeal.

Good Standing

A student is determined to be in "good standing" in the School of Education when the undergraduate grade point average (GPA) meets or surpasses the minimum 2.5 standard, and when the student has no pending issues with the Student Assessment Committee.

Bulletin Designation

Students must meet requirements for graduation and licensure as stated by the school in the IUPUI Campus Bulletin at the time of initial enrollment, or as set forth in any subsequent bulletin. Students are expected to meet requirements of a single bulletin.

Due to changes adopted by the Indiana Professional Standards Board, most programs at IUPUI are under review and revision. Students are encouraged to see an academic advisor each semester for current program information.

Other Special School or Program Requirements, Including Graduation Policies

Revalidation of Professional Education Courses

Professional education courses must be current in order to be acceptable in undergraduate certification programs. No professional education or technology courses can be more than 10 years old at the time of student teaching. Course work that is older, whether taken at IUPUI or another university, will need to be revalidated, retaken, or updated; the student should consult with a School of Education academic advisor.

A candidate's content knowledge must be similarly up-to-date. Individuals pursuing a secondary teaching license who have courses in the teaching area(s) more than 10 years old must also consult with an academic advisor about updating or revalidating the work.

Campus Residency Requirement

A student must complete at least 30 of the last 60 credit hours required for a specific degree program while in residence at IUPUI. These 30 credit hours will include methods courses in the major as well as student teaching. For students who are completing a first undergraduate degree, some work in the major must also be completed at IUPUI, unless the student has transferred from an IU campus offering a degree in that major.

Correspondence Courses

Students in education degree or license programs are not encouraged to take correspondence courses. Neither professional education courses nor courses meeting unit expectations for "communication and quantitative reasoning" may be taken by correspondence.

Temporary and Permanent Intercampus Transfers

To register for a single semester or for the summer session(s) at another campus of Indiana University, the student must file a Temporary Intercampus Transfer Request with the Education Student Services Office on the campus currently being attended. To transfer permanently from one campus to another campus of Indiana University, the student must file an Intercampus Transfer Request with the Education Student Services Office on the campus currently being attended. Advance notice is necessary to allow for the transfer of records and the validation of the student's eligibility to continue studies. Contact Education Student Services for details and deadlines established by each campus.

Honors Program

The School of Education Honors Program is part of the university-wide Honors Program at IUPUI, and is available to students who are interested in strengthening and/or enriching their academic experiences. This program is built on the IUPUI Principles of Undergraduate Learning and the Interstate New Teacher Assessment and Support Consortium (INTASC) standards for teacher education. Honors students are eligible for financial stipends and have opportunities to work closely with faculty. Students must complete an application for admission to the Honors Program.

Undergraduate Students in Graduate Courses

There are two conditions under which undergraduate students may enroll in graduate courses:

1. Undergraduate students in their junior or senior year may take graduate courses that will count in their undergraduate program if the graduate courses are relevant to their program of study and there is no similar undergraduate course available.
2. Undergraduate students in the last semester of their senior year may take graduate courses that may later be applied to a graduate program. Graduate courses taken prior to the last undergraduate semester may not be applied to a graduate program, and no course may be applied to both an undergraduate and a graduate program. Undergraduate students who meet either of these conditions must, further, have an undergraduate grade point average (GPA) of 3.0 or higher, obtain written permission from the course instructor, and obtain the approval of the Director of Graduate Studies.

Graduation

The School of Education requires a **minimum** of 124 credit hours to qualify for graduation, determined by specific degree requirements. Some programs require additional hours for graduation. Consult a School of Education academic advisor for specific requirements.

All degree candidates admitted to the Teacher Education Program in fall 2000 or after must have achieved passing scores on the relevant PRAXIS II: Specialty Test(s) to qualify for graduation and to be recommended for initial licensure.

Students should file an application for a Bachelor of Science degree in the School of Education at the beginning of their final year of classes or at the beginning of their senior year. The application for graduation is available on the Web at education.iupui.edu/forms/home.htm or from Education Student Services (ES 3131). Application for a degree is a student responsibility, and the School of Education will not be responsible for the graduation of students who fail to file an application.

Degree with Honors The School of Education recognizes high cumulative grade point averages with the designations "Distinction," "High Distinction," and "Highest Distinction." To earn a degree with honors, students must earn a minimum grade point average of 3.6 in all course work taken toward the B.S. in Education degree, must be in the top 10 percent of the class, and must complete at least four full semesters in residence at Indiana University campuses.

Application for Licensure

Within two weeks of graduation, students should file an Indiana State Application for a Teaching License. The application requires evidence of passing scores for all state licensure exams as well as a recent criminal history check. Instructions for obtaining the criminal history check are included in the application packet available from Education Student Services, (ES 3131) or from the School of Education homepage on the Web at education.iupui.edu.

Information about both required exams can be obtained at Education Student Services or through the Educational Testing Service (ETS) Web site (www.ets.org/prxsets.html). Additional information on licensing and current state standards is available through the Indiana Professional Standards Board or from their Web site (www.state.in.us/psb).

Career Services

Students and alumni are encouraged to register with the Career Center at IUPUI. The Career Center (1) assists registrants in locating teaching, administrative, and special service positions in schools, colleges, and universities, and as appropriate in business, industry, and governmental agencies; (2) assists registrants with the development of employment credentials, and upon request, sends that credential to prospective employers and other eligible agencies; (3) provides career counseling and planning services for students and alumni; (4) conducts research concerning supply and demand and employment trends, issues, and procedures; (5) assists employers in finding qualified candidates for vacant positions in their respective institutions and agencies; and (6) sponsors on-campus recruiting activities for education students.

There is a nominal fee for the initial registration and for establishing the placement file. A nominal fee is also charged to cover the cost of duplicating, assembling, and mailing each credential file to a

prospective employer. Resume writing assistance and access to listings of positions open in area school systems are available through the Career Center Web site (www.iupui.edu/~career/).

Students are encouraged to initiate their placement file early in the year in which they will become available for employment. Nearly all employers in the field of education request formal credentials as a part of the employment process

School Awards and Scholarships

In 1987, IUPUI instituted a scholarship program in memory of the astronauts who perished in the Challenger shuttle tragedy. Each year since, this program has enabled IUPUI to recognize a group of scholars who, by way of their own careers, will keep alive the examples set by those courageous space pioneers. The **Challenger Scholarship** supports undergraduate students to pursue careers teaching science, social science, or engineering at any level, from primary to post-secondary.

The **Everett E. Jarboe Award** honors a graduating senior who exhibits academic excellence, campus and community leadership and service. The award was established to honor the first administrator of the School of Education at IUPUI who served from 1968-1973.

The **Ruth Esther Holland Award** supports outstanding undergraduate students in the field of elementary and secondary language education. Currently Professor Emerita, Holland taught language education at IUPUI from 1972-1989.

In 1996, the faculty and staff of the School of Education established two scholarships to help support students with financial need during the student/teaching semester. Each year one **Faculty/Staff Scholarship** is awarded to a student who will student teach in the fall semester and one to a student who will student teach in the spring.

The **Nicholas H. Noyes, Jr., Scholarship** is awarded to an undergraduate student in teacher education at IUPUI. The recipient must be a member of Kappa Delta Pi honorary and have a grade point average (GPA) of at least 3.6.

A **Global Education Prize** is awarded to honor the work of Dr. Golam Mannan, Professor Emeritus in the School of Education. The prize goes to an international or minority student in the School of Education who has shown particular interest in global and multicultural issues in education.

The **Patricia Tefft Cousin Scholarship** was established by the Tefft and Cousin families, friends, and colleagues to honor the life and work of Pat Tefft Cousin, a member of faculty from 1996-1999. The scholarship goes to an outstanding undergraduate student majoring in elementary education who has a demonstrated interest in special education, literacy, or early childhood education.

The **Barbara L. Wilcox Scholarship** was established anonymously in 1996 to honor the

contributions and accomplishments of Barbara Wilcox, a member of the Education faculty who served as Executive Associate Dean from 1992-2001.

A complete list of scholarships is available from the Curriculum Resource Center (CRC). Applications, which are available on the home page on the Web at education.iupui.edu, are typically due early in the spring semester.

School Organizations

Education Student Advisory Council (ESAC)

ESAC is the student organization of the School of Education. It is open to all undergraduate students, both elementary and secondary. ESAC sponsors both informational and social programs throughout the year, including workshops in areas of interest in curriculum and instruction, as well as job search strategies. More information on ESAC membership and sponsored events is available in the Curriculum Resource Center, Education/Social Work Building, (ES) 1125, or on the bulletin boards on the first-floor hallway in the ES building.

Kappa Delta Pi

Kappa Delta Pi is an international honorary organization founded to recognize excellence in education. Students who are invited for membership exhibit the ideals of scholarship, high personal standards, and outstanding achievement in professional education courses. The IUPUI chapter of Kappa Delta Pi sponsors a wide variety of programs for its members and the School of Education.

School of Education Alumni Association

The School of Education Alumni Association was founded in 1951 "to further the educational, professional, and social interests of the School of Education and the alumni." The association provides an ongoing link between the graduate and the university. The Education Alumni Association sponsors education-related events throughout the state, and publishes *Chalkboard*, a semiannual magazine for all graduates of the Indiana University School of Education.

General Education

General education refers to courses and other experiences that lay the foundation for IUPUI students to evidence progress toward the IUPUI "Principles of Undergraduate Learning." There is a focus on building skills in written and oral communication, information technology, inquiry, science, literature, quantitative reasoning, and both global and democratic perspectives.

Students are encouraged to follow this template for the first 30 credit hours of the program. Both the particular sequence and the course clusters or

learning communities designated for education majors have been planned to provide the strongest foundation and to build the most powerful connections between the content of the individual courses.

Courses that build the general education foundation for early childhood and elementary education majors are listed below; they are organized by the Principles of Undergraduate Learning to which they are most directly related. Students pursuing a secondary or all-grades license are expected to fulfill the general education requirements articulated by the major department or school.

Communication and Quantitative Skills

ORAL and WRITTEN EXPRESSION (9 cr.)

ENG W131	Elementary Composition I*
ENG W132	Elementary Composition II*
COMM R110	Fundamentals of Speech Communication*

QUANTITATIVE REASONING (9 cr.)

MATH 130 and 132 or 136	or
EDUC N443	Teaching Elementary School Mathematics Problem Solving

QUANTITATIVE ELECTIVE (3 cr. selected from the following)

MATH M118	Finite Mathematics
MATH M290	Mathematics and Art
PHIL P162	Logic
PHIL P265	Elements of Symbolic Logic
POLS Y205	Elements of Political Analysis
PSY B305	Statistics
SOC R251	Methods of Social Research
STAT 301	Elementary Statistical Methods (I)
STAT 302	Elementary Statistical Methods (II)

TECHNOLOGY LITERACY (3 cr.)

EDUC W200	Using Computers in Education
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Critical Thinking

SCIENCE (12 cr.)

EDUC Q200	Introduction to Scientific Inquiry
BIOL N100	Contemporary Biology
GEOL/CHEM	GEOL G110 or CHEM C100
PHYS P200	Physical Environment

HISTORICAL PERSPECTIVES AND INQUIRY (3 cr. from the following)

HIST H105	American History*
HIST H217	The Nature of History

Understanding Society and Culture

GEOG G110	Human Geography
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SOCIAL SCIENCE ELECTIVE (3 cr. from the following)

ANTH A103	Human Origins and Prehistory
ANTH A104	Culture and Society
ECON E101	Survey of Current Economic Issues and Problems
POLS Y101	Principles of Political Science
SOC R100	Introduction to Sociology
SOC R121	Social Problems
SPEA V170	Introduction to Public Affairs

LITERATURE (6 cr.)

Literature for Children and Youth	
ENG L390	Children's Literature or

EDUC E449	Trade Books and the Classroom Teacher
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Literature Elective (3 cr. from the following)

FLAC F200	World Cultures through Literature
ENG L115	Literature for Today
COMM T130	Introduction to Theater

FINE ARTS (7 cr.)

HER H110	Art Appreciation
MUS E241	Introduction to Music Fundamentals
HPER P290	Movement Experiences for Preschool and Elementary Children

Depth, Breadth, and Adaptiveness

Diversity Elective (3 cr. from the following)*

ANTH A104	Culture and Society
REL R212	Comparative Religion
AFRO A150	Survey of the Culture of Black Americans
POLS Y217	Introduction to Comparative Politics
WOST W105	Introduction to Women's Studies

Concentration (9 additional cr. for a total of 12-15 cr.) in one of the following areas. See Education Student Services for course lists for each concentration.

- Afro-American Studies
- American Studies
- Anthropology
- Art
- Creative Writing
- Geography
- History
- Language Studies
- Literature
- Mathematics
- Movement and Dance
- Music
- Philosophy
- Political Science/Government
- Science
- Sociology
- Theater

Values and Ethics

Social science, historical inquiry, and diversity electives all address this principle, as do courses throughout the professional education component of the program.

Integration/Application

These principles are addressed in the professional education (41-42 cr.) and student teaching (16 cr.) components of each program (described below).

Suggested Sequence for General Education

A recommended sequence for completing the general education component is presented below. Please consult the *Schedule of Classes* or Education Student Services each semester to identify the "learning communities" and designated sections for education majors. Courses noted optional may be taken at any time but should be completed before entry into the Teacher Education Program

First Semester (13-16 cr.)

First Year Seminar (1 cr.) *and*

EDUC W200: Using Computers in Education (3 cr.) *and*

GEOG G110: Human Geography (3 cr.)

ENG W131: Elementary Composition (3 cr.) *and* Social Science elective (3 cr.)

HER H100: Art Appreciation (3 cr.) * (optional this semester)

Second Semester (12-15 cr.)

EDUC Q200: Introduction to Scientific Inquiry (3 cr.) *and*

BIOL N100: Human Biology (3 cr.)

ENG W132 Elementary Composition II (3 cr.) *and* Historical Perspectives Elective (3 cr.)

Literature Elective (3 cr.) (optional this semester)

Third Semester (15-17 cr.)

MATH M130/132 (6 cr.) or M136 (6 cr.) or EDUC N443 (6 cr.)

COMM R110 Speech Communication (3 cr.) *and* Diversity elective (3 cr.)

HPER P290 Movement Experiences Preschool/Elementary (2 cr.) (optional this semester)

Elective for concentration (3 cr.)

Fourth Semester (14-17 cr.)

GEOL/CHEM integrator (3 cr.) *and*

PHYS/AST integrator (3 cr.)

Children's Literature ENG L390 or EDUC E449 (3 cr.) *and*

MUS E241 Music Fundamentals (2 cr.)

Quantitative reasoning elective (3 cr.) (optional this semester)

Electives for concentration (3 cr.)

Note: Course groupings connected by "*and*" denote clusters or learning communities developed for education majors. Courses noted by * indicate that special sections of the freestanding course will be designated for education majors. An additional 3 credit hours remains to be scheduled. Some courses, especially the freestanding courses and electives for the concentration may be scheduled during summer sessions.

Professional Education

The professional education component is a carefully articulated program of study where courses are taken in blocks and in a prescribed order (presented below). The professional education courses that are part of Learning to Teach/Teaching to Learn are tied closely to specific "professional development school" (PDS) sites in Marion County. These are schools that have entered into a special partnership with the School of Education. Some of the formal course work as well as all of the field experiences that accompany this course work are conducted at the PDS sites. Students also have the option to student teach at these PDS sites.

Because LT/TL is a field-based program in which formal class sessions are integrated with field experiences, most professional education courses are offered at a time when teacher education candidates are able to work with students in K-12 classrooms. Most professional education courses are scheduled during the day, and students will need to make arrangements to devote one day (part-time enrollment) or two days (full-time enrollment) each week to complete the class and field experience work.

Student Teaching

All interns complete student teaching assignments in two school settings. For early childhood and elementary education majors, student teaching will comprise two 8-week placements, the first in Block IIIB and the second in Block IVB. Elementary majors will complete one primary placement and another intermediate placement while early childhood majors will complete a preschool/kindergarten placement and a second placement in a primary classroom (grades 1-3).

In the secondary programs, the student teaching requirement will be met by consecutive eight-week placements in a middle school and high school setting during Block IV. Students completing a program leading to an all-grades license should consult with their major advisor about the logistics of the student teaching placements.

Eligibility Requirements for Student Teaching

To be eligible for student teaching, an intern must have:

1. Been admitted to the Teacher Education Program.
2. Attended a Student Teaching Information Session and submitted an Application for Student Teaching before the end of the fall semester of the academic year preceding the year of the desired experience.
3. Passing scores on the Block I Rubric and Block II performance task and no issues outstanding with the Student Assessment Committee.
4. Senior or graduate standing in the university or be within two semesters and one summer session of graduation. (In no case should a student have completed fewer than 84 credit hours prior to the semester in which the student teaching and/or practicum is to be done.)
5. Completed at least three-fourths of the credit hours required for licensing in the teaching area(s).
6. Completed all professional education and education technology courses within ten years and attained a minimum grade point average (GPA) of 2.5 in all professional education courses with a minimum grade of C in each professional education course.
7. Earned a minimum overall GPA of 2.5 at Indiana University.

Application for Student Teaching

All students must sign up for and attend a Student Teaching Information Session and file an Application for Student Teaching. This application must be filed during the fall semester of the academic year preceding the year in which student teaching is to be done. (For example: students apply fall semester 2002 for student teaching assignments in either fall 2003 or spring 2004.)

Placements

The mechanics of student teaching placements are discussed at the Student Teaching Information Session. Final placement decisions reflect both recommendations from the intern's major department

or school and collaborative planning with partnership schools. Arrangements for placement and supervision are made by the Office of Student Teaching.

Assessment During Student Teaching

A *student teaching portfolio* submitted at the end of the first student teaching assignment is a key element of IUPUI's performance assessment system. The requirements of the portfolio are outlined in the *Learning to Teach/Teaching to Learn Curriculum Assessment Handbook*. If the student teaching portfolio submitted at the conclusion of the initial student teaching placement does not receive a passing score, the student will receive feedback and have the opportunity to revise and resubmit after the second student teaching placement.

Interns also undergo formal observation by their mentor teachers and university supervisors.

Degree Tracks and Program Requirements

Bachelor of Science in Early Childhood Education

The B.S. in Early Childhood Education will prepare teachers with the knowledge, disposition, and skills to provide programs to children 0-8 years in a variety of educational settings. The program welcomes candidates who have completed the Associate of Science in Early Childhood Education. Candidates pursuing the B.S. in Early Childhood Education may matriculate *only* in fall semester.

GENERAL EDUCATION (68 credit hours)

Students in the early childhood program complete the general education requirements outlined above in the sample program of study. Students are encouraged to enroll in course clusters or learning communities designated for education majors whenever they are available.

PROFESSIONAL EDUCATION (42 credit hours)

Students in the early childhood program are authorized for professional education courses only after admission to Teacher Education. Courses are taken in the order indicated below. Unless otherwise noted, the prefix for all courses is EDUC. Field experience is closely integrated with courses and will be completed at sites designated by the program.

Block I

A: Diversity and Learning

Component Courses:

M320	Diversity and Learning: Teaching Every Child
	Field Experience

B: Literacy and Numeracy in Early Childhood

Component Courses:

E345	Language Arts and Mathematics for Young Children
	Field Experience

Block II

A: Early Childhood A

Component Courses:

E330	Infant Learning Environments
M324	Teaching about the Arts
	Field Experience

B: Early Childhood B

Component Courses:

E328	Science in the Elementary Schools
E337	Classroom Learning Environments
	Field Experience

Block III

A: Curriculum in a Democracy

Component Courses:

E338	The Early Childhood Educator
P249	Rhythmic Experiences for Children
	Field Experience

B: Reflective Practitioner

Component Courses:

M424	Student Teaching: Kindergarten-Primary
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Block IV

A: Individualizing Instruction

Component Courses:

K307	Methods of Teaching Students With Special Needs
E340	Reading Methods I
	Field Experience

B: Reflective Practitioner

Component Courses:

M424	Student Teaching: Early Childhood
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STUDENT TEACHING (16 credit hours)

The 16 credit hour Student Teaching and Senior Seminar will include specific experience at both early childhood (0-3 yrs)/preschool (3-5 yrs) and middle childhood (5-8 years; grades K-12) developmental levels.

Bachelor of Science in Education/Elementary Education

The elementary education program prepares graduates to meet standards for teaching in K-6 settings.

GENERAL EDUCATION (68 credit hours)

Students in the elementary education program complete the general education requirements outlined above in the sample program of study. Students are encouraged to enroll in course clusters or learning communities designated for education majors whenever they are available.

Students are encouraged to see an education advisor for course lists for the "concentration" and to begin planning early to meet that requirement.

PROFESSIONAL EDUCATION (42 credit hours)

Students pursuing an initial license to teach in grades K-6 are authorized for professional education courses only after admission to the Teacher Education Program. Courses are taken in the order indicated. Unless otherwise noted, the prefix for all courses is EDUC. Field experiences are completed in professional development school sites designated by the program.

Block I

A: Diversity and Learning

Component Courses:

M320	Diversity and Learning: Teaching Every Child
	Field Experience

B: Literacy and Numeracy in Early Childhood

Component Courses:

E345	Language Arts and Mathematics for Young Children
	Field Experience

Block II

A: Literacy and Numeracy in Middle Childhood

Component Course:

E340	Methods of Teaching Reading I
M324	Teaching About the Arts
	Field Experience

B: Scientific and Aesthetic Exploration

Component Courses:

E328	Science in the Elementary Schools
E343	Mathematics in the Elementary Schools
	Field Experience

Block III

A: Individualizing Instruction

Component Courses:

K307	Methods for Teaching Students with Special Needs
E341	Methods of Teaching Reading II
	Field Experience

B: Reflective Practitioner

Component Courses:

M425	Student Teaching: Kindergarten-Primary
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Block IV

A: Curriculum in a Democracy

Component Courses:

E325	Social Studies in the Elementary Schools
H340	Education and American Culture
	Field Experience

B: Reflective Practitioner

Component Courses:

M425	Student Teaching: Elementary
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Student Teaching (16 credit hours)

All students complete two eight-week assignments, one during Block IIIB and the second during Block IVB. One assignment will be to grades K-3 ("primary") and the second to grades 3-6 ("intermediate").

Elementary Endorsements (12-21 credit hours)

Additional study in designated areas qualifies a student for endorsements to the elementary license. A minimum grade point average (GPA) of 2.5 is required for each endorsement.

KINDERGARTEN ENDORSEMENT (GRADUATE TRACK)

This track is available to students who already hold an elementary teaching license.

EDUC E506 Curriculum in Early Childhood Education (3 cr.)

EDUC E508 Seminar in Early Childhood Education (3 cr.)

EDUC E509 Internship in Early Childhood Education/Student Teaching (6 cr.)

EDUC E525 Advanced Curriculum in Early Childhood Education (3 cr.)

HPER H363 Personal Health (3 cr.) or

HPER N231 Human Nutrition (3 cr.)

COMPUTING ENDORSEMENT

The addition of the "Computer Endorsement" to the standard elementary teaching license serves as an additional credential for those who wish to serve as leaders in the use of technology within their schools.

Prerequisite Courses:

EDUC W200 Using Computers in Education (3 cr.)

Required:

EDUC W204 Programming for Microcomputers in Education (3 cr.) or

CSCI N331 Visual Basic Programming (3 cr.)

EDUC W210 Survey of Computer-Based Education (3 cr.)

EDUC W220 Technical Issues in Computer-Based Education (3 cr.)

EDUC W310 Computer-Based Teaching Methods (3 cr.)

EDUC W410 Practicum in Computer-Based Education (6 cr.)

Plans are underway for a graduate-level certificate in Technology Infusion. Interested students should consult an academic advisor in education.

READING ENDORSEMENT TO ELEMENTARY LICENSE

The holder of the reading minor is eligible to be a reading teacher at the level of the certification to which it is attached. The minor is valid for the duration of the certificate to which it is attached.

Required courses:

EDUC E340 Methods of Teaching Reading I (3 cr.)

EDUC E341 Methods of Teaching Reading II (3 cr.)

EDUC X401 Critical Reading in the Content Area (3 cr.)

EDUC X425 Practicum in Reading (6 cr.)

EDUC X470 Psycholinguistics for Teachers of Reading (3 cr.) or an advisor-approved linguistics course

EDUC E449 Trade Books and the Classroom Teacher (1-3 cr.) or

ENG L390 Children's Literature (3 cr.)

Electives: Approved courses from reading, educational psychology, special education, and language-related areas.

SPECIAL EDUCATION (MILD INTERVENTION): DUAL CERTIFICATION PROGRAM FOR ELEMENTARY EDUCATION MAJORS (24 credit hours)

The field of special education has become more collaborative and inclusive. Special educators must be prepared to work collaboratively with general education personnel, and they must be well-versed in curriculum and instruction that meets the needs of all learners, including those with disability labels.

This program prepares students to teach in elementary schools, (grades 1-6) and to teach students with "mild" intervention needs. Mild intervention certification will replace licensure in the state of Indiana in the areas of learning disabilities and mild cognitive and emotional disabilities.

Students must enroll in either the full-time or part-time Learning to Teach/Teaching to Learn program beginning in the fall semester. In addition, students are required to take one of the following 3-credit seminars each semester while completing this program.

Professional Education courses:

Prerequisite/Corequisite (with Seminar 1) EDUC K201 Schools, Society, and Exceptionality (3 cr.), EDUC K305 Teaching the Exceptional Learner in the Elementary School (3 cr.)

Prerequisite/Corequisite (with Seminar 5) EDUC K307 Methods for Teaching Students with Special Needs (3 cr.)

Required Special Education courses:

Seminar 1 EDUC K490* (fall) Individuals and Families in School and Society

Seminar 2 EDUC K490* (spring) Assessment and Instruction

Seminar 3 EDUC K490* (summer I) Collaboration and Service Delivery

Seminar 4 EDUC K490* (summer II) Assistive Technology in Education

Seminar 5 EDUC K490* (fall) Classroom Management and Behavior Support

Seminar 6 EDUC K490* (spring) Transition Across the Lifespan

Practicum EDUC K495 (6 cr.)

Field experience will be scheduled as part of the normal course block. For these candidates, one of the eight-week student teaching experiences will be a special education assignment.

TEACHING ENGLISH AS A NEW LANGUAGE

A program leading to a license in Teaching English as a New Language is under development. The primary audience is practicing educators; however, the program is also available to qualified students working toward an initial teaching license. The program combines work in English and education with supervised practicum experience. A minimum of two semesters of a college-level foreign language is required for admission

*Note: K490 is a temporary course number for the Dual Certification Program seminars.

Bachelor of Science in Education with Middle School/High School Teaching License

GENERAL EDUCATION (a minimum of 45 credit hours)

Students pursuing an initial license to teach at the secondary level are expected to fulfill the general education requirements articulated by the major department/teaching area. Students are expected to enroll in EDUC W200 as a vehicle for developing technology literacy.

TEACHING AREAS

A minimum grade point average (GPA) of 2.5 is required for all courses in the teaching area(s). The course of study for the various secondary teaching areas is presented below.

ENGLISH (36 credit hours)

At present, individuals interested in teaching English at the middle school or high school level major in "English Education" in the School of Education. A review of requirements for the English major is currently underway to determine whether students might complete a double major meeting requirements for a major in English as well as covering the professional education courses required for licensure. Students should consult an academic advisor in the School of Education for requirements well before applying to the program.

FOREIGN LANGUAGES (36 cr.)

Program leading to French, German, Spanish

All three language majors require a minimum of 36 credit hours covering language, literature, culture and civilization, and electives. A review of requirements for each major is currently underway. Students should consult an academic advisor in the School of Education for requirements well before applying to the program.

Prior to admission into EDUC M445 Methods of Teaching Foreign Languages, all language majors must take a departmental proficiency examination. The examination may be taken more than once, but the student must pass the examination before being admitted to student teaching. The examination will test the student's oral proficiency and knowledge of language structure.

MATHEMATICS (38 credit hours)

Students pursuing the standard senior high/junior high/middle school teacher certification program in mathematics for a first undergraduate degree at IUPUI must be enrolled in the IUPUI School of Science and must meet degree requirements for the IUPUI School of Science as well as for teacher certification.

Students pursuing a license to teach secondary mathematics can matriculate in the Teacher Education Program during fall semesters only. Requirements are currently under review in light of the new license framework. At present they include:

- CSCI 230 Computing I (3 cr.)
- MATH 163 Integrated Calculus and Analytic Geometry I (5 cr.)
- MATH 164 Integrated Calculus and Analytic Geometry II (5 cr.)
- MATH 261 Multivariate Calculus (4 cr.)
- MATH 262 Linear Algebra and Differential Equations (4 cr.)
- MATH 300 Foundation of the Number Systems (3 cr.)
- MATH 351 Elementary Linear Algebra (3 cr.)
- MATH 453 Algebra I (3 cr.)
- MATH 463 Advanced Geometry (3 cr.)
- MATH 583 History of Elementary Mathematics (3 cr.)
- STAT 311 Introductory Probability I (3 cr.) or
- STAT 511 Statistical Methods I (3 cr.)

SCIENCE (51 credit hours)

Students pursuing licensure to teach in biology, chemistry, earth science, or physics at the secondary level as part of a first undergraduate degree must be enrolled in the School of Science at IUPUI. They must meet degree requirements of the School of Science as well as School of Education requirements for licensure.

The license framework adopted by the Indiana Professional Standards board in June 1999 represented a significant departure from earlier regulations. Rather than the traditional single discipline license in science, the new framework will license middle and high school teachers for the following interdisciplinary areas:

- Life Science (comprising biology and ecology)
- Physical Science (comprising chemistry and physics)
- Earth/Space Science (comprising geology, astronomy, and geography)

In addition, Indiana has adopted new science standards for K-12 students that also has implications for science teacher preparation.

Work is currently underway to reconcile new license requirements with various departments' requirements for the major so that students can develop necessary supporting areas and complete all School of Education requirements. Interested students should consult with a School of Education academic advisor or with the designated advisor in the department of interest.

SOCIAL STUDIES (includes History and Political Science) (52 cr.)

What is referred to as "social studies" in middle school or high school actually comprises content from seven different university departments: history, political science/government, geography, economics, sociology, anthropology, and psychology. At present, individuals interested in teaching social studies at the secondary level major in "social studies education" and earn a B.S. from the School of Education. Requirements combine broad-based work in various academic departments, and professional education and student teaching in the education department. A review of the program requirements in various departments is underway with the goal of enabling students to complete a double major in education and

either history or political science while still meeting the supporting area requirements of the license framework.

Students should plan their program of study with an Academic Advisor in the School of Education and with a relevant departmental advisor in the School of Liberal Arts.

SPEECH COMMUNICATION AND THEATER (36 cr.)

As a result of the new license framework, a review of requirements is currently underway. Students should plan their program of study with an academic advisor in the School of Education and with a relevant departmental advisor from the School of Liberal Arts in the Speech Communication/Theater department.

PROFESSIONAL EDUCATION (25 credit hours)

Students pursuing an initial license to teach in middle/high school are authorized for professional education courses only after admission to the Teacher Education Program. Courses should be taken in the order indicated. Unless otherwise indicated, all prefixes are EDUC. Field experiences for each block are completed with mentor teachers designated by the School of Education.

H341/H520 Educational Foundations (3 cr.)

Diversity and Learning Block (7 cr.)

Component Courses: M322 Diversity and Learning: Reaching Every Adolescent Field Experience

Middle School Block (7 cr.)

Component Courses: S420 Teaching and Learning in the Middle School
M469 Content Area Literacy Field Experience

High School Block (4 cr.)

Component Courses: S430 Teaching and Learning in the High School
Field Experience

Content Block (4 cr.) spring only

Component Courses: Special Methods
Field Experience

Student Teaching (16 cr.)

Component Courses: M451 Student Teaching in the Middle School—8 weeks
M480 Student Teaching in the High School—8 weeks

STUDENT TEACHING (16 credit hours)

For students pursuing a license to teach at the secondary level, student teaching comprises the final semester. Back-to-back placements in a middle school and high school setting are arranged through the School of Education. Either developmental level may be scheduled first; order will depend on student preference and on the availability of mentor teachers.

Endorsements to Secondary License

Additional study in designated areas qualifies a student for endorsement to the secondary license. A minimum grade point average (GPA) of 2.5 is required for each endorsement.

COACHING ENDORSEMENT (18 credit hours)

HPER A480 Care and Prevention of Athletic Injuries (1 cr.)

HPER P397 Kinesiology (3 cr.)

HPER P450 Principles and Psychology of Coaching (3 cr.)

HPER Theory and Techniques of Coaching—6 credits from the following: A361, A362, A363, A364, A365, A366, A367, A368, A369, A370, A371, or A372.

BIOL N217 Human Physiology (5 cr.)

COMPUTER ENDORSEMENT (18 cr.)

The addition of the “Computer Endorsement” to the standard secondary teaching license serves as an additional credential for those who wish to serve as leaders in the use of technology within their schools.

Prerequisite Courses:

EDUC W200 Using Computers in Education (3 cr.)

Required:

EDUC W204 Programming for Microcomputers in Education (3 cr.) or

CSCI N331 Visual Basic Programming (3 cr.)

EDUC W210 Survey of Computer-Based Education (3 cr.)

EDUC W220 Technical Issues in Computer-Based Education (3 cr.)

EDUC W310 Computer-Based Teaching Methods (3 cr.)

EDUC W410 Practicum in Computer-Based Education (6 cr.)

DRIVER AND TRAFFIC SAFETY EDUCATION ENDORSEMENT (12 credit hours)

HPER S350 Content and Materials in Safety Education (2 cr.)

HPER S456 Traffic Safety Education for Teachers (4 cr.)

HPER S458 Driver Education Multiple Instruction Techniques (3 cr.)

HPER S360 Highway Safety Administration (3 cr.)

JOURNALISM Minor (27 credit hours)

Communications Theory and Writing (18 credit hours)

JOUR J110 Foundations of Journalism and Mass Communications (3 cr.)

JOUR J200 Reporting, Writing, and Editing I (3 cr.) P: JOUR J100

JOUR J201 Reporting, Writing, and Editing II (3 cr.)

JOUR J300 Communications Law (3 cr.)

JOUR J410 The Media as Social Institutions (3 cr.)

JOUR J425 Supervision of School Publications (3 cr.)

Reporting and Editing (select one pair) (6 credit hours)

JOUR J341 Newspaper Reporting (3 cr.) and

JOUR J351 Newspaper Editing (3 cr.)

JOUR J342 Magazine Reporting (3 cr.) and

JOUR J352 Magazine Editing (3 cr.)

JOUR J343 Broadcast News (3 cr.) and

JOUR J353 Advanced Broadcast News (3 cr.)

JOUR J344 Photojournalism (3 cr.) and

JOUR J354 Photojournalism Editing (3 cr.)

Elective (select one) (3 credit hours)

JOUR J210 Visual Communications (3 cr.)

JOUR J463 Computer Publication Design I (3 cr.)

JOUR J465 Computer Publication Design II (3 cr.)

READING ENDORSEMENT TO SECONDARY LICENSE (Middle School/High School Program) (24 credit hours)

Required:

EDUC M469 Content Area Literacy (3 cr.)

EDUC X400 Diagnostic Teaching of Reading in the Classroom (3 cr.)

EDUC X401 Critical Reading in the Content Area (3 cr.)

EDUC X425 Practicum in Reading (6 cr.)

EDUC X470 Psycholinguistics for Teachers of Reading (3 cr.) or an advisor-approved linguistics course.

EDUC X460 Books for Reading Instruction

(Adolescent Literature) (3 cr.) or

ENG L376 Adolescent Literature (3 cr.)

Electives:

Approved courses from reading, educational psychology, special education, and language-related areas.

All-Grade Licensure Programs

Students pursuing an all-grades license must be students in good standing in either HPER or Herron, and must meet both the degree requirements of the relevant school and the School of Education requirements for licensure.

General Education

Students must complete the program of general education outlined by the relevant school (HPER or Herron).

Teaching Areas

PHYSICAL EDUCATION

Because of changes in the state license framework, the requirements for Physical Education students pursuing a teaching license are currently under review. Students are encouraged to contact Dr. Betty Jones, chair of Teacher Education in the School of Physical Education, for a current list of requirements in the teaching area.

VISUAL ARTS

The art education program is currently under review, and students are encouraged to consult with Dr. Cindy Bixler Borgmann, coordinator of Art Education in the Herron School of Art.

Professional Education and Student Teaching

The professional education and student teaching requirements for students in all-grades programs are currently under review. Students should consult an academic advisor in the School of Education for specific information.

Statement on Graduate Programs

Post-Baccalaureate Licensure Programs

Students who already hold a baccalaureate degree may apply to the Teacher Education Program in the School of Education. A formal transcript evaluation and an orientation session are required before enrollment. There is a fee for the transcript evaluation. Information and the transcript evaluation request form are available on the School of Education Web site (education.iupui.edu) or by calling Education Student Services at (317) 274-6801. Students who have earned a baccalaureate degree are expected to enroll in graduate-level sections.

Beginning Summer 2001, IUPUI will offer a field-based, post-baccalaureate program leading to an initial license to teach science in middle school and high school settings. Qualified candidates can complete the program in a 15-month period (four consecutive semesters: summer/fall/spring/summer). Applicants must have

- earned a B.S. or B.A. degree from an accredited college or university.
- maintained a cumulative grade point average (GPA) of 3.0.
- completed a major in a field of science.
- passed all components of Praxis I or the PreProfessional Skills Test. (Note: Praxis and PPST are required by the Indiana Professional Standards Board (IPSB); IUPUI does not have authority to waive the requirement.)

Credits earned in the post-baccalaureate program can be applied toward the master's degree. Interested individuals should contact the Director of Graduate Education.

Graduate Degree Programs

A full range of graduate opportunities is available through the School of Education at IUPUI. Students can earn the Master of Science in Elementary Education, Secondary Education, Early Childhood Education, Language Education, Special Education, and complete requirements for the master's in Higher Education/Student Affairs. The program in Counseling and Counselor Education leads to a master's degree and a license in school counseling. The school also offers a master's degree with a special focus on technology integration on-site in several area school systems.

IUPUI provides unique opportunities for collaborative studies (for example, education and museum studies) or interprofessional work (for example, courses that enroll students from education, nursing and social work to emphasize service integration at the school site).

Through its "Summer in the City" program, the school offers a range of graduate workshops each summer on contemporary topics of interest to teachers and administrators. A growing number of courses for license renewal or continuing professional development is available on line or through interactive video technology.

Indianapolis also offers opportunities for doctoral study in education. Although applications for all doctoral programs are submitted through the Bloomington campus, substantial course work and some entire programs are available at IUPUI. Opportunities for research in Indianapolis and for collaboration with IUPUI-based faculty are available to any student in a graduate program offered by the core campus. Doctoral students in any program area may work with, and have dissertations directed by, faculty whose tenure is at IUPUI. Both teaching and research assistantships are available at IUPUI to support students in advanced graduate work in Indianapolis.

IUPU Columbus

Coursework leading to the B.S. in Elementary Education is available at IUPU Columbus; however, at the present time, students pursuing an initial license to teach in the elementary setting must register for student teaching through IUPUI.

Students at IUPU Columbus must meet the same admission and degree requirements as those in Indianapolis, including the same standards for performance assessments. Application to the Teacher Education Program is made directly to IUPU Columbus. Enrollment is limited and students are urged to consult an education program advisor at the Columbus campus.

Calendar and Schedule of Classes

Registration dates at IUPU Columbus generally do not correspond with the calendar listed in this bulletin. Final schedules and calendars pertaining to IUPU Columbus are available at IUPU Columbus.

IUPU Columbus
4601 Central Avenue
Columbus, IN 47203
Phone: (812) 348-7271 (Student Services Office)
or 1-800-414-8782, Ext. 7271
Web: www.columbus.iupui.edu

Undergraduate Courses in the School of Education

The abbreviation "P" refers to course prerequisites. The number of hours of credit given a course is indicated in parentheses following the course title. The "I" or "B-I" after the course title indicates whether the course is offered at Indianapolis, or at both the Indianapolis and Bloomington campuses.

Courses in this section are listed alphabetically by prefix letter and in ascending numerical order within each of the sections. Unless otherwise specified, the prefix to all courses is EDUC.

Elementary Education

E325 Social Studies in the Elementary Schools (3 cr.) B-I Emphasizes the development of objectives, teaching strategies, and evaluation procedures that facilitate the social learning of young children. Special attention given to concept learning, inquiry, decision making, and value analysis.

E328 Science in the Elementary Schools (3 cr.) B-I The focus of this course will be on developing teacher competencies in writing performance objectives, question-asking, evaluating, and sequencing. These competencies will reveal themselves in the preparation and development of science activities and the teaching strategies involved in presenting those activities to elementary school children.

E330 Infant Learning Environments (3 cr.) B-I P: P251 and M101 or taken concurrently. Appropriate instructional strategies to enhance infant-toddler development, caregiving skills, and knowledge of appropriate learning environments. Students will apply strategies and knowledge in providing care and educational experiences. Open to students from allied health, psychology, pediatric nursing, and social work.

E337 Classroom Learning Environments (3 cr.) B-I This course focuses on the curriculum aspects of early childhood programs designed to meet ethnic and cultural differences, and on planning, utilizing, and evaluating learning environments. Selection of materials and activities, and the acquisition of skills for using these to stimulate children's development, are major focuses.

E338 The Early Childhood Educator (3 cr.) B-I P: E337. Includes the role of the teacher as a professional educator, including professional responsibilities, legal rights and responsibilities of teachers and students, school and community relations, and involvement in professional organizations. A major emphasis is on parent involvement and parent education.

E339 Methods of Teaching Language Arts in the Elementary School (2-3 cr.) B-I Describes the methods, materials, and techniques employed in the elementary school language arts program.

E340 Methods of Teaching Reading I (2-3 cr.) B-I Describes the methods, materials, and techniques employed in elementary school developmental reading programs.

E341 Methods of Teaching Reading II (2-3 cr.) B-I P: E339 and E340. Describes the methods, materials, and techniques employed in diagnosis and corrective instruction in elementary school reading programs.

E343 Mathematics in the Elementary Schools (1-3 cr.) B-I Emphasizes the developmental nature of the arithmetic process and its place as an effective tool in the experiences of the elementary school child.

E345 Language Arts and Mathematics for Young Children (6 cr.) Methods of developing language, cognition, reading and mathematical readiness, mathematical thinking through play, the arts, and directed experiences; design of curriculum and appropriate teaching strategies for young children.

E449 Trade Books and the Classroom Teacher (3 cr.) Emphasizes the use of trade books in language and reading in elementary classrooms.

E490 Research in Elementary Education (1-3 cr.) B-I Individual research.

E495 Workshop in Elementary Education (cr. arr.) B-I For elementary school teachers. Gives one credit hour for each week of full-time work.

Foundations of Education

F200 Examining Self as a Teacher (3 cr.) B-I Designed to help a student make a career decision, better conceptualize the kind of teacher the student wishes to become, and reconcile any preliminary concerns that may be hampering a personal examination of self as teacher. Students will design a major portion of their work.

F203 Topical Exploration in Education (1-3 cr.) B A one-semester course on a particular topic, established at the request of a faculty member and by the approval of the Academic Affairs Committee. Applies only as elective credit.

H340 Education and American Culture (3 cr.)

B-I The present educational system: its social impact and future implications viewed in historical, philosophical, and sociological perspective.

Special Education

K201 Schools, Society, and Exceptionality (1-3 cr.) B-I This course is designed to provide an overview of the many complex issues related to special-education policy and practice in the United States. Content will include an introduction to the definitions and characteristics of various exceptionalities; an exploration of the options available for instructing exceptional children in public school settings; and discussion of the many important topics and issues related to planning and implementing special education in American public schools.

K305 Teaching the Exceptional Learner in the Elementary School (3 cr.) B-I Knowledge, attitudes, and skills basic to the education of exceptional learners (students who are handicapped as well as gifted and talented) in the regular elementary classroom. Topics include historical and international perspectives, the law and public policy, profiling the exceptional learner, developing a responsive curriculum, teaching and management strategies, and teachers as persons and professionals. (Sem. I and II)

K306 Teaching Students with Special Needs in the Secondary Classrooms (3 cr.) This course includes an overview of skills and knowledge necessary for effective instruction of students with disabilities in inclusive secondary programs.

K307 Methods for Teaching Students with Special Needs (3 cr.) This course prepares future teachers to work with students with diverse abilities in

inclusive settings. Participants learn to use learning modalities, varied rates and complexity of instruction, and making use of individual interests and preferences. Additionally, differentiating and/or individualizing instruction for all learners and developing classroom management skills are emphasized.

K490 Research in Special Education (1-3 cr.)

B-I Individual research and study in special education.

K490 Topical Seminars for Special Education Dual Certification Program (3 cr.) I

Seminar 1: Individuals and Families in School and Society

The purpose of this seminar is to learn the perspectives of individuals with disabilities and their families regarding the impact of disabilities in their daily lives. A life-span approach will be used to discuss issues related to birth and early childhood, school-age years, and adulthood. Additional topics include labeling, legal issues, person-centered planning, and academic, social/emotional, behavioral, and environmental issues.

Seminar 2: Assessment and Instruction

This seminar teaches students how to gain knowledge of formal and informal assessment techniques, how to link assessment to curriculum and instruction, and how to effectively choose, construct, deliver, and evaluate curriculum and instruction to students with diverse learning needs.

Seminar 3: Collaboration and Service Delivery

The purposes of this seminar are to explore service delivery options currently available in special education and to assist students in building their collaborative skills, including effective communication and consultation skills.

Seminar 4: Assistive Technology in Education

This seminar assists students in developing an understanding of assistive technology and its role in assisting individuals with disabilities in all areas of life, including education, employment, housing, recreation, and transportation.

Seminar 5: Classroom Management and Behavior Support

The purpose of this course is to provide students with basic knowledge and skills for (1) developing and maintaining proactive classroom environments; (2) teaching children social problem-solving and self-control skills; (3) managing and preventing school-based crisis behaviors; and (4) working with parents and other professionals.

Seminar 6: Transition Across the Lifespan

This course provides an in-depth discussion of issues and strategies related to transitions from pre-school through elementary, middle, and high school, and into adulthood. Relevant laws, planning, processes, strategies for interagency collaboration, and resources will be highlighted.

K495 Laboratory/Field Experiences in Special Education (cr. arr.: max. 9) B-I

P: Consent of instructor. This course provides the student a field-based, supervised experience with individuals with severe handicaps. It allows the opportunity to interact within school/work/community settings on a daily

basis (three hours a day, five days a week). Specific assignments, which are mutually agreed upon among student, cooperating teacher, and practicum supervisor, are also required.

Language Education

L441 Bilingual Education: Introduction (3 cr.)

B-I Introduction to the development of bilingual/bicultural education in the United States and its antecedents, rationale, and theories. Comparison of existing bilingual/bicultural programs.

L442 Methods for Bilingual Teaching (3 cr.) B-I

P: L441. Methods of teaching the content areas in a bilingual setting, including techniques of linguistic analysis.

L490 Research in Language Education (1-3 cr.)

B-I Individual research and study in language education.

Methods

M101 Laboratory/Field Experience (0-3 cr.) B-I
Laboratory or field experience. Grade: S or F.

M201 Laboratory/Field Experience (0-3 cr.) B-I
Laboratory or field experience for sophomores. Grade: S or F.

M300 Teaching in a Pluralistic Society (3 cr.)

B-I This course is designed to introduce students to teaching as a profession. Students focus upon the "self as teacher," learning styles, cultural pluralism, and classroom teaching strategies that respond positively to the personal and ethnic diversity of the learner.

M301 Laboratory/Field Experience (0-3 cr.) B-I
Laboratory or field experience for juniors. Grade: S or F.

M303 Laboratory/Field Experiences: Junior High/Middle School (0-3 cr.) B-I Laboratory or field experiences at the junior high or middle school level. (May be repeated.) Corequisite with M314, M330, or M336. Grade: S or F.

M304 Laboratory/Field Experience (0-3 cr.)
Laboratory or field experience. Grade: S or F

M305 Laboratory/Field Experience (0-3 cr.)
Laboratory or field experience. Grade: S or F

M306 Laboratory/Field Experience (0-3 cr.)
Laboratory or field experience. Grade: S or F

M307 Laboratory/Field Experience (0-3 cr.)
Laboratory or field experience. Grade: S or F

M314 (M313) General Methods for Senior High/Junior High/Middle School Teachers (3 cr.) B-I General methodology and organization; knowledge about the teaching process, including general methods, instructional media, measurement, curriculum development and organization of the senior high/junior high/middle school; and techniques to promote individualized and interdisciplinary learning.

M316 Secondary General Methods (1-4 cr.) B-I This is an introductory course in general teaching strategies for secondary schools, with an emphasis on adolescent learning and current issues in curriculum and instruction.

M317 Student Commonality and Diversity (1-3 cr.) B-I Examines the implications of diversity

and the value of cultural sensitivity in education. Students will become familiar with differences in learning and communication styles on the basis of race, gender, ethnicity, religion, socioeconomic class, and language as well. They will also become familiar with multicultural education in practice, and its effects on the curriculum, classroom, and school structure.

M320 Diversity and Learning: Teaching Every Child (6 cr.)

This course integrates information from education psychology and multicultural and special education to prepare students to teach children in their early childhood and middle childhood years. The content includes adolescent development, learning theory, motivation, and assessment. Students reflect critically on personal assumptions and develop attitudes and beliefs supportive of multicultural education and inclusion.

M322 Diversity and Learning: Reaching Every Adolescent (6 cr.)

This course integrates information from education psychology and multicultural and special education to prepare students to teach adolescents and young adults. The content includes adolescent development, learning theory, motivation, and assessment. Students reflect critically on personal assumptions and develop attitudes and beliefs supportive of multicultural education and inclusion.

M324 Teaching About the Arts (1-3 cr.) B-I

Introduction to the importance of the arts in elementary-school curriculum. Students are given a foundation of methods and materials in art and music that will enable them to integrate the arts into the general curriculum, supplement art lessons given by school art specialists, and encourage student discussion and understanding of art and music in the world today.

M330 Foundations of Art Education and Methods I (3 cr.) B-I **P:** H340, P254, M300 and 15 credit hours of studio art courses. An introduction to art-education theory and related social issues. Supervised art teaching in elementary schools is an important part of this course.

M371 Foundations of Art Education (4 cr.) I Historical, sociological, and philosophical foundations of art education; curriculum development; individualized and interdisciplinary learning; instructing K-12 audiences; K-12 school organization; and general processes and practices of teaching art, including the creative problem-solving process, along with interpreting, understanding, and judging art. School and museum field experiences included.

M401 Laboratory/Field Experience for Seniors (0-3 cr.) B-I Laboratory or field experience. Grade: S or F.

M403 Laboratory/Field Experiences (0-3 cr.) B-I Laboratory or field experiences at the high school level. (May be repeated.) Corequisite with the required special methods course. Grade: S or F.

M411 Laboratory/Field Experience: Middle and Secondary School (1-3 cr.) B Laboratory or field experience in middle or secondary school science classes. (May be repeated.) Corequisite with M446 Methods of Teaching Senior High/Junior High/Middle School Science.

M423 Student Teaching: Early Childhood

(1-16 cr.) Full-time supervised student teaching for a minimum of eight weeks in a preschool identified by the university. The experience is directed by a qualified supervising teacher and has university-provided supervision. Grade: S or F.

M424 Student Teaching: Kindergarten-Primary

(1-16 cr.) Full-time supervised student teaching for a minimum of eight weeks in a kindergarten or primary grade in a school accredited by the state of Indiana. The experience is directed by a qualified supervising teacher and has university-provided supervision. Grade: S or F.

M425 Student Teaching: Elementary (1-16 cr.)

B-I Full-time supervised student teaching in grades 1-6 for a minimum of ten weeks in an elementary school accredited by the state of Indiana, or in an equivalent approved school out of state. The experience is directed by a qualified supervising teacher and has university-provided supervision. Grade: S or F.

Methods Courses for Subject Matter**Concentrations: General Information**

P: (1) junior standing; (2) 20 credit hours in the subject in which the methods course is to be taken if in the major field, 15 credit hours if in the minor field; (3) admission to the Teacher Education Program; (4) a minimum grade of 2.5 in all education courses and in courses in the major and minor areas (any exceptions are noted under specific subject concentration). Students applying for student teaching must take their methods course on the campus to which they are applying. Methods courses concern problems of teaching the subject indicated, including the methods, procedures, devices, materials, and outstanding research in the field.

M442 Teaching Secondary School Social Studies

(4 cr.) B-I Develops concepts and theories from social science, humanities, and education into practices of successful social studies instruction. Integrates social issues and reflective thinking skills into the social studies curriculum. Emphasis on curriculum development skills and on building a repertoire of teaching strategies appropriate for middle/secondary school learners. Includes micro-teaching laboratory.

M445 Methods of Teaching Foreign Languages

(1-4 cr.) B-I Development and practice of skills and techniques for teaching foreign languages, selecting content and materials, and evaluating student and teacher performance. Micro-teaching laboratory included. This course should be taken during the semester immediately preceding student teaching. (Sem. I only)

M446 Methods of Teaching Senior High/Junior

High/Middle School Science (1-5 cr.) B-I P: 35 credit hours of science. Designed for students who plan to teach biology, chemistry, earth science, general science, or physics in the junior high/middle school or secondary school. Assignments and credit will be differentiated for graduate students.

M451 Student Teaching: Junior High/Middle

School (1-16 cr.) B-I Full-time supervised student teaching for a minimum of 10 weeks in a junior high or middle school accredited by the state of Indiana, or

in an equivalent approved school out of state. The experience is directed by a qualified supervising teacher and has university-provided supervision. Grade: S or F.

M452 Methods of Teaching English in the Senior High/Junior High/Middle School

(1-5 cr.) B-I Methods, techniques, content, and materials applicable to the teaching of English in secondary schools, junior high schools, and middle schools. Experiences provided to assess ongoing programs in public schools and to study materials appropriate for these programs.

M456 Methods of Teaching Physical Education

(3 cr.) B-I P: M314 General Methods. Development and organization of teaching materials for various teaching styles found in the elementary and secondary public schools. Includes class management concepts and demonstration of teaching skills in laboratory sessions.

M457 Methods of Teaching Senior High/Junior High/Middle School Mathematics (2-4 cr.) B-I

P: 30 credit hours of mathematics. Study of methodology, heuristics of problem solving, curriculum design, instructional computing, professional affiliations, and teaching of daily lessons in the domain of secondary and/or junior high/middle school mathematics. (Sem. I only)

M469 Content Area Literacy (1-3 cr.) B-I

Focuses on middle, junior, and senior high school. Curriculum, methods, and materials for teaching students to read and learn more effectively in all content areas.

M470 Practicum (3-8 cr.) B-I

Instructional experience under the direction of an identified supervising teacher, with university-provided supervision in the endorsement or minor area, and at the level appropriate to the area. Placement will be in an accredited school within the state of Indiana unless the integral program includes experience in an approved and accredited out-of-state site. The practicum may be full- or part-time, but in every instance the amount of credit granted will be commensurate with the amount of time spent in the instructional setting. Grade: S or F.

M472 Teaching Art in the Elementary School

(3 cr.) I P: M371, HER C311. Develops understanding and appreciation of teaching, with emphasis on teaching in the elementary schools. Includes curriculum and lesson planning, organization of materials and ideas, and techniques of classroom management. To be taken concurrently with M301, which encompasses off-campus experiences in the elementary schools.

M473 Teaching Art in the Secondary Schools

(3 cr.) I P: M371, HER C311. Develops understanding and appreciation of teaching, with emphasis on teaching art in the secondary schools. Includes advanced studies of curriculum and lesson planning, classroom organization, and management techniques. Must be taken concurrently with M401, which encompasses Herron Saturday School experience.

M480 Student Teaching in the Secondary School

(1-16 cr.) B-I Full-time supervised student teaching

for a minimum of ten weeks in a junior high/middle school or senior high school accredited by the state of Indiana, or in an equivalent approved school out of state. The experience is directed by a qualified supervising teacher and has university-approved supervision. Grade: S or F.

M482 Student Teaching: All Grades (1-16 cr.)

B-I Full-time supervised student teaching in the areas of visual arts, music, physical education, special education, or school library/media services for a minimum of ten weeks at an elementary school, junior high/middle school, and/or senior high school accredited by the state of Indiana, or at an equivalent approved school out of state. The experience is directed by a qualified supervising teacher and has university-provided supervision. Grade: S or F.

S420 Teaching and Learning in the Middle

School (3 cr.) Middle schools operate on unique philosophical and organizational foundations. This course will explore the design of middle schools and the ways teachers work to meet the needs of a diverse range of learners including those with specific needs. Preservice teachers will develop the skills needed to provide challenging learning opportunities to young adolescent learners.

Mathematics Education**N443 Teaching Elementary-School Mathematics**

Problem Solving (3 cr.) B-I The teaching and learning of problem solving. Topics include types of problems, appropriate instructional sequences, strategies for solving problems, factors related to problem difficulty, evaluating problem-solving learning. Work with elementary-school children is included.

Educational Psychology**P249 Growth and Development in Early**

Childhood (3 cr.) B-I Focuses on the cognitive, social, affective, and physical development of the child during the early years of life. The goal of understanding the growing child from multiple perspectives guides the study of theory and research on child development. Theoretical study is integrated with observations of, and experiences with, children in a way that increases the insights and competence of the teacher of young children. Addresses the unique developmental problems of special groups of children such as members of minority groups and children who are handicapped or economically deprived.

P251 Educational Psychology for Elementary

Teachers (1-4 cr.) B-I The application of psychological concepts to school learning and teaching, using the perspective of development from childhood through preadolescence. Special attention is devoted to the needs of the handicapped.

P254 Educational Psychology for Teachers of

All Grades (1-4 cr.) B-I The application of psychological concepts to school learning and teaching, using the perspective of development from childhood through adolescence. Special attention is devoted to the needs of the handicapped.

P255 Educational Psychology for Middle and

Secondary School Teachers (1-4 cr.) B-I The application of psychological concepts to school learning and teaching, using the perspective of

development from the beginning of preadolescence through adolescence. Special attention is devoted to the needs of the handicapped.

P490 Research in Educational Psychology (1-3 cr.) Individual Research.

Science Education

Q200 Introduction to Scientific Inquiry (1-3 cr.) B-I Course provides the elementary-education major with background in the science process skills needed to complete required science courses.

Q490 Research in Science Education (1-6 cr.) B-I Individual research and study in science education.

Secondary Education

S490 Research in Secondary Education (1-3 cr.) B-I Individual research.

Computer Education

W200 Using Computers in Education (1-3 cr.) B-I Required of all students pursuing teacher education. Introduction to instructional computing and educational computing literature. Hands-on experience with educational software utility packages and commonly used microcomputer hardware.

W204 Programming for Microcomputers in Education (3 cr.) B-I P: W210. Develops programming skills necessary for using a computer and for understanding computer programming as it applies to teaching. Not offered for credit if W201 and W202 have been taken.

W210 Survey of Computer-Based Education (3 cr.) B-I P: W200 or permission of instructor. The first course for the endorsement in educational computing. Proficiency in the use of application programs. Study of social, moral, and technological issues of educational computing.

W220 Technical Issues in Computer-Based Education (3 cr.) B-I P: W210. An examination of computer hardware and peripheral devices in classroom settings (e.g., networking, communications, and hypermedia). Understanding of educational applications of a programming or authoring language.

W310 Computer-Based Teaching Methods (3 cr.) B-I Integration of educational technology into the school curriculum; methods of teaching computer literacy, computing skills, and programming at K-12 levels; principles of educational software design and evaluation; staff development techniques.

W410 Practicum in Computer-Based Education (3-6 cr.) B-I The culminating experience for the computer endorsement. Either six weeks of full-time fieldwork or 12 weeks of half-time fieldwork in an educational setting that incorporates instructional computing.

W450 Research in Instructional Computing (1-3 cr.) B-I Research in instructional computing.

Reading

X400 Diagnostic Teaching of Reading in the Classroom (3 cr.) B-I Diagnosis of reading difficulties and solution to problems through research, conference, and practice in the use of materials and equipment.

X401 Critical Reading in the Content Area (3 cr.) B-I Aids elementary and secondary teachers in the development of instructional strategies that assist students in the comprehension, critical analysis, and integration of ideas presented in print material from various subject matter areas.

X425 Practicum in Reading (1-6 cr.) B-I P: X400 or E339 and E340 and E341; or consent of instructor. Students will work in selected elementary and secondary classrooms to diagnose reading problems and to develop students' reading competence.

X460 Books for Reading Instruction (3 cr.) B-I Examines the use of trade books and non-text materials for teaching language arts and reading K-8. Special sections may focus on specific student populations. Section emphasis announced each semester. (At IUPUI, the focus of this course is adolescent literature, grades 5-12.)

X470 Psycholinguistics for Teachers of Reading (1-3 cr.) B-I Explores the linguistic and cognitive dimensions of language. Discusses relationships among the systems of language and also among the various expressions of language. Always includes topics on semantics, grammar, and dialect.

X490 Research in Language Education (1-6 cr.) B-I Individual research.

School of Education Administrative Officers and Faculty

Administrative Officers

University Dean, Gerardo M. Gonzalez, Bloomington, Education, ED 4105, (812) 856-8001

Executive Associate Dean, Khaula Murtadha, Education/Social Work Building, ES 3138A, (317) 274-6862

Associate Dean, Academic Affairs, Christine H. Leland, Education/Social Work Building, ES 3153, (317) 274-6832

Chair, Undergraduate Teacher Education, Beth Berghoff, Education/Social Work Building, ES 3127, (317) 278-1108

Chair, Graduate Education and Continuing Professional Development, Pat Rogan, Education/Social Work Building, ES 3128 (317) 274-6806

Assistant Dean, Student Services and Student Teaching, Linda Houser, Education/Social Work Building, ES 3144, (317) 274-6842

Undergraduate Recorder, Maureen Jayne, Education/Social Work Building, ES 3143, (317) 274-0643

Graduate Recorder, Dee Outlaw, Education/Social Work Building, ES 3140, (317) 274-6868

Directors of Departments and Programs

Art Education, Cindy Borgmann, Herron School of Art, Photo Lab, JD 100E, (317) 920-2450

Counseling and Counselor Education, Keith Morran, Education/Social Work Building, ES 3111, (317) 274-6850

Early Childhood Education, Jacqueline Blackwell, Education/Social Work Building, ES 3155, (317) 274-6830

Educational Leadership/School Administration, see the Graduate Advisor in Education Student Services, ES 3131

Foreign Language Education, Larbi Oukada, Cavanaugh Hall, CA 501J, (317) 274-8419

Higher Education and Student Affairs, Kandace Hinton, Education/Social Work Building, ES 3161, (317) 274-6827

Language Education, Christine Leland, Education/Social Work Building, ES 3153, (317) 274-6832

Mathematics Education, Beatriz D'Ambrosio, Education/Social Work Building, ES 3152, (317) 274-6833

Physical Education, Elizabeth Jones, Physical Education/Natatorium Building, PE 268, (317) 274-2248

Science Education, Charles Barman, Education/Social Work Building, ES 3162, (317) 274-6826

Special Education, Jeff Anderson, Education/Social Work Building, ES 3124, (317) 274-6809

All other programs, contact Beth Berghoff (317) 278-1108 or Pat Rogan (317) 274-0806

Information about School of Education programs can also be obtained by seeing an advisor in ES 3131 or by accessing the School of Education home page on the Web at education.iupui.edu.

Faculty

Anderson, Jeff, Ph.D. (University of South Florida, Tampa, 1998), Assistant Professor (Graduate School—Associate)

Banta, Trudy W., Ed.D. (University of Tennessee, 1967), Professor (Graduate School)

Barman, Charles, Ed.D. (University of Northern Colorado, 1974), Professor (Graduate School)

Barman, Natalie, M.S.T. (University of Wisconsin—Superior, 1975) Visiting Lecturer

Berghoff, Beth, Ph.D. (Indiana University, 1995), Associate Professor (Graduate School—Associate)

Blackwell, Jacqueline, Ph.D. (University of Maryland, 1977), Associate Professor (Graduate School—Associate)

Bohnenkamp, Julie, M.S. (George Mason University, 1991), Adjunct Lecturer

Britton, Ronald B., Ed.D. (University of Missouri, 1972), Associate Professor

Chism, Nancy Van Note, Ph.D. (Ohio State University, 1984), Associate Professor (Graduate School)

Cohen, Michael R., Ph.D. (Cornell University, 1968), Professor (Graduate School)

D'Ambrosio, Beatriz, Ph.D. (Indiana University, 1987), Associate Professor (Graduate School)

Gajewski, Roberta, M.S. (Indiana University–Purdue University Indianapolis, 1974), Visiting Lecturer

Goud, Nelson H., Ph.D. (Michigan State University, 1967), Associate Professor

Held, Mary, M.S. (Syracuse University, 1994), Visiting Assistant Professor

Houser, Linda, Ph.D. (Indiana State University, 1992), Adjunct Assistant Professor

Leland, Christine H., Ed.D. (Boston University, 1986), Associate Professor (Graduate School)

Magee, Paula, Ph.D. (City University of New York, 1992), Visiting Lecturer

Medina, Monica, M.S. (Indiana University, 1979), Visiting Lecturer

Morran, Keith, Ph.D. (Indiana University, 1980), Professor (Graduate School)

Morrone, Anastasia, Ph.D. (University of Texas at Austin, 1992), Assistant Professor (Graduate School–Associate)

Murtadha, Khaula, Ph.D. (Miami University, 1994), Associate Professor (Graduate School–Associate)

Ociepka, Anne, M.A. (Northeastern Illinois University), Visiting Lecturer

Osgood, Robert, Ph.D. (Claremont Graduate School, 1989), Associate Professor (Graduate School–Associate)

Preusz, Gerald C., Ed.D. (Indiana University, 1970), Associate Professor

Robison, Floyd F., Ph.D. (Indiana University, 1982), Associate Professor (Graduate School)

Rogan, Patricia M., Ph.D. (University of Wisconsin–Madison, 1987), Associate Professor (Graduate School)

Rosario, Jose, Ph.D. (University of Wisconsin–Madison, 1976), Professor (Graduate School)

Silk, David, Ph.D. (University of Maryland, 1972), Associate Professor (Graduate School–Associate)

Tempel, Eugene, Ed.D. (Indiana University, 1985), Professor

Walker, Vicki Rumford, M.Ed. (University of Louisville, 1984), Visiting Lecturer

Wilcox, Barbara L., Ph.D. (University of Illinois, 1972), Professor (Graduate School)

Faculty Emeriti

Abel, Billy, Ed.D. (Indiana University, 1970)

Arrington, J. Donald, Ed.D. (Indiana University, 1972)

Best, William P., Ph.D. (Purdue University, 1968)

Brill, Arthur D., Ed.D. (Indiana University, 1969)

Davis, Bette Joe, Ph.D. (Wayne State University, 1975)

Dehnke, Ronald E., Ed.D. (Wayne State University, 1966)

Draper, Merle R., Ed.D. (Indiana University, 1965)

Ebbert, J. Marvin, Ph.D. (Purdue University, 1964)

Gilchrist, Mary A., Ed.D. (University of Colorado, 1968)

Grigsby, Clifford E., Ed.D. (Indiana University, 1971)

Hart, Stuart N., Ph.D. (Indiana State University, 1972)

Harvin, Virginia, Ed.S. (Indiana University, 1964)

Hobbs, Philip J., Ph.D. (Purdue University, 1969)

Holland, Ruth E., Ed.D. (Indiana University, 1967)

Jarboe, Everett, Ed.D. (Indiana University, 1949)

Mannan, Golam, Ph.D. (Indiana University, 1967)

McBurney, Wendell F., Ed.D. (Indiana University, 1967)

Perisho, M. Joan, M.S. in Ed. (Indiana University, 1950)

Robbins, Edward L., Ed.D. (Indiana University, 1971)

Scannell, Dale, Ph.D. (University of Iowa, 1958)

Wolf, Hugh A., Ed.D. (Indiana University, 1971)

Wood, Leslie A., Ed.D. (Stanford University, 1962)

PURDUE SCHOOL OF ENGINEERING AND TECHNOLOGY



Technology Building (ET) 215
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www.engr.iupui.edu

Contents

173 Introduction	198 Department of Construction Technology	211 Technical Communications Program
173 History of the Purdue School of Engineering and Technology	199 A.S. in Architectural Technology	211 Certificate in Technical Communication
173 Vision and Mission of the School	199 A.S. in Civil Engineering Technology	211 Technology Course Descriptions
173 Academic Programs	199 A.S. in Interior Design	211 Architectural Technology
173 Engineering Degree Programs	200 B.S. in Construction Technology	212 Biomedical Electronics Technology
173 Technology Degree Programs	200 Construction (Management) Option	212 Civil Engineering Technology
173 Undergraduate Admission	200 Surveying Option	213 Computer Graphics Technology
175 Special Expenses	200 Construction Drafting Certificate	215 Computer Integrated Manufacturing Technology
175 Fees and Payment Procedures	201 Construction Management Certificate	215 CIMT Employment Enrichment Programs
176 Financial Aid	201 Surveying Certificate	216 Computer Technology
177 Academic Policies and Procedures	201 Department of Electrical and Computer Engineering Technology	218 CPT Employment Enrichment Programs
180 Scholarships and Awards	201 A.S. in Biomedical Electronics Technology	218 Construction Technology
181 School or Program Clubs	202 Clinical Laboratory Equipment Technology Certificate Program	219 CNT Employment Enrichment Programs
181 General-Education Program	202 A.S. in Computer Engineering Technology	219 Electrical Engineering Technology
181 Specific Degree Tracks	203 B.S. in Computer Engineering Technology	220 EET Employment Enrichment Programs
181 Undergraduate Engineering Programs	203 A.S. in Electrical Engineering Technology	220 Industrial Engineering Technology
181 Undergraduate Engineering Curriculum	203 B.S. in Electrical Engineering Technology	221 Interior Design
182 Freshman Engineering Program	204 Communication Systems	221 Mechanical Engineering Technology
182 Department of Electrical and Computer Engineering	204 Control Systems	222 MET Employment Enrichment Programs
182 B.S. in Electrical Engineering	204 Digital/Microprocessor Systems	222 Organizational Leadership and Supervision
184 B.S. in Computer Engineering	204 Electronic Devices and Systems	223 OLS Employment Enrichment Programs
185 B.S. in Engineering—Interdisciplinary Engineering	204 Electronics Manufacturing	223 Other Technology Courses
185 Graduate Programs in Electrical and Computer Engineering	204 Power Systems	223 Technical Communications
185 Department of Mechanical Engineering	204 Advanced Curriculum Program	224 School of Engineering and Technology Faculty
185 B.S. in Mechanical Engineering	205 Minor in Electrical Engineering Technology	224 Administrative Officers
187 Graduate Programs in Mechanical Engineering	205 Minor in Digital Electronics Technology	224 Resident Faculty
187 B.S. in Engineering—Interdisciplinary Engineering	205 Department of Mechanical Engineering Technology	226 Faculty Emeriti
187 B.S. in Engineering—Engineering Management	205 A.S. in Computer Graphics Technology	
188 B.S. in Engineering—Biomedical Engineering	205 Interactive Multimedia Developer	
188 Graduate Programs in Biomedical Engineering	205 Manufacturing Graphics Communication	
188 Engineering Course Descriptions	205 Technical Animation and Spatial Graphics	
188 Electrical and Computer Engineering	206 B.S. in Computer Graphics Technology	
191 ECE Employment Enrichment Programs	206 Interactive Multimedia Developer	
191 Freshman Engineering	206 Manufacturing Graphics Communication	
192 Materials Engineering	206 Technical Animation and Spatial Graphics	
192 Mechanical Engineering	206 A.S. in Computer Integrated Manufacturing Technology	
194 ME Employment Enrichment Programs	207 B.S. in Computer Integrated Manufacturing Technology	
194 Technology Programs	207 A.S. in Mechanical Engineering Technology	
194 Associate of Science	207 B.S. in Mechanical Engineering Technology	
195 Bachelor of Science	208 A.S. in Mechanical Engineering Technology	
195 Technology Plans of Study	208 Advanced Curriculum Track	
195 Department of Computer Technology	208 B.S. in Mechanical Engineering Technology	
195 A.S. in Computer Technology (Commercial Option)	208 Advanced Curriculum Track	
196 A.S. in Computer Technology (Technical Option)	208 Computer Graphics Certificate Program	
196 B.S. in Computer Technology	208 Quality Control Certificate Program	
198 Minor in Computer Technology	209 CAD/CAM Certificate Program	
198 Information Technology Certificate	209 Manufacturing Systems Certificate Program	
198 E-Commerce Development Certificate	209 Electronics Manufacturing Certificate	
	209 Department of Organizational Leadership and Supervision	
	209 A.S. in Organizational Leadership and Supervision	
	210 B.S. in Organizational Leadership and Supervision	
	210 Human Resource Management Certificate Program	
	210 Certificate in International Leadership	

Introduction

The Purdue School of Engineering and Technology offers undergraduate and graduate programs that prepare students for careers in industry. The school is one of the largest degree-granting schools at IUPUI, with an enrollment of approximately 2,300 students. All degrees are awarded by Purdue University.

History of the Purdue School of Engineering and Technology

The School of Engineering and Technology was formed in 1972 and is the successor to Purdue University programs that began in Indianapolis in 1940. The first Purdue University courses in the city were defense training courses sponsored by the U.S. Office of Education. After World War II, the curriculum was changed from a certificate to a diploma program. Three technical-institute programs were established: drafting and mechanical technology, electrical technology, and supervision and production technology. Ten students graduated at the first commencement in 1947. Freshman engineering courses were added in 1948; the Bachelor of Science in Engineering degree was first offered in 1969. The School now offers undergraduate and graduate programs leading to Purdue University degrees. Several of the programs have transfer and articulation agreements with a few Indiana colleges and universities as well as with international institutions abroad.

Vision and Mission of the School

The Purdue School of Engineering and Technology vision is to be an innovative leader in effective, collaborative, and accessible education, research and scholarship, and service programs in engineering and technology. Its mission is to provide quality education, develop technical leaders, and conduct basic and applied research. To enhance our community through civic responsibility and by promoting economic development.

Academic Programs

The School of Engineering and Technology is unique in offering programs in both engineering and engineering technology. What is the difference between the two areas? **Engineering students** learn the principles and theories needed to plan, design, and create new products and are more likely to use broad analytical skills in achieving engineering solutions. **Engineering technology students** learn technical methods and practices to become experts who apply technology to solve industrial problems.

Engineering Degree Programs

Bachelor of Science in Computer Engineering (B.S.Cmp.E.)
 Bachelor of Science in Electrical Engineering (B.S.E.E.)
 Bachelor of Science in Engineering (B.S.E.)
 Bachelor of Science in Mechanical Engineering (B.S.M.E.)
 Master of Science (M.S.)
 Master of Science in Biomedical Engineering (M.S.Bm.E.)
 Master of Science in Engineering (M.S.E.)
 Master of Science in Electrical and Computer Engineering (M.S.E.C.E.)
 Master of Science in Mechanical Engineering (M.S.M.E.)
 Doctor of Philosophy in Biomedical Engineering (Ph.D.)

Technology Degree Programs

Associate of Science (A.S.) degrees with a major field of study in one of the following:

Architectural Technology
 Biomedical Electronics Technology
 Civil Engineering Technology
 Computer Engineering Technology
 Computer Graphics Technology
 Computer Integrated Manufacturing Technology
 Computer Technology
 Electrical Engineering Technology
 Interior Design
 Mechanical Engineering Technology
 Organizational Leadership and Supervision
Bachelor of Science (B.S.) degrees with a major field of study in one of the following:
 Computer Engineering Technology
 Computer Graphics Technology
 Computer Integrated Manufacturing Technology
 Computer Technology
 Construction Technology
 Electrical Engineering Technology
 Mechanical Engineering Technology
 Organizational Leadership and Supervision

In addition to IUPUI's accreditation by the North Central Association of Colleges and Secondary Schools, most individual programs have professional accreditation from either the Engineering Accreditation Commission or the Technology Accreditation Commission of the Accreditation Board for Engineering and Technology (ABET), 111 Market Place, Suite 1050, Baltimore, MD 21202, (410) 347-7700. Where appropriate, program accreditation is identified on the page describing the individual plan of study.

Undergraduate Admission

The Purdue School of Engineering and Technology offers admission opportunities to all students qualified to complete any of its programs, as long as space for effective instruction is available. The school reserves the right, however, to give admission preference to those students whose legal residence is within the state of Indiana. Inquiries about admission as well as requests for admission applications should be addressed to the Office of Admissions, Cavanaugh Hall 129, 425 University Boulevard, IUPUI, Indianapolis, IN 46202-5140.

Admission with Advanced Standing

Many prospective students may be eligible to begin their program of study in the School of Engineering and Technology at an advanced level. Eligibility for advanced standing will be established most frequently by transfer of credit from another college or university, by formal advanced placement courses in high school, by participation in the College Level Examination Program (CLEP), or by achievement of credit by examination.

Qualified applicants who have not previously attended another college or university may obtain specific information by writing the Office for Academic Programs, Purdue School of Engineering and Technology, Room 215, IUPUI, 799 W. Michigan Street, IUPUI, Indianapolis, IN 46202-5160.

Transfers

From IUPUI Schools, Indiana University Campuses, or Purdue University Campuses

Students wishing to transfer from these schools must have a minimum cumulative grade point average of 2.0 on a 4.0 scale and be in good academic and disciplinary standing. The required minimum cumulative grade point average may be higher in some programs. Students must follow the procedures listed below. After reviewing the transfer request and supporting materials, the school will inform students in writing of the acceptance or rejection of the application.

1. IUPUI students or students in the IU system wishing to transfer into the School of Engineering and Technology must apply directly to their intended department. Transfers out of the School of Engineering and Technology must be processed by the school Recorder.
2. A Purdue University student from another campus must complete an official undergraduate application through the IUPUI Office of Admissions.
3. If a student seeking admission to the School of Engineering and Technology previously has been dismissed for academic reasons, he or she must file a petition for readmission that will be reviewed by the Committee on Readmissions. The petition may be obtained from the Office for Academic Programs, School of Engineering and

Technology, Room 215, 799 W. Michigan Street, Indianapolis, IN 46202.

From Other Colleges and Universities

Applicants transferring from colleges and universities other than Indiana University or Purdue University must fulfill the following requirements:

1. An IUPUI application for undergraduate admission and a copy of high school records must be submitted to the Office of Admissions.
2. An official transcript of all course work done, from all institutions previously attended, also must be forwarded to the Office of Admissions.
3. For admission to an engineering or technology program, residents of Indiana must have a cumulative grade point average of at least 2.0 on a 4.0 scale, and out-of-state applicants must have an average of at least 2.5, for all courses previously taken at a recognized college or university. Transfer credits are evaluated by the Office of Admissions and distributed by the Office for Academic Programs in coordination with the department in which the student enrolls.
4. Residency requirement to receive a degree: Transfer students must complete a program of study that includes at least 32 credit hours for a bachelor's degree and at least 15 credit hours for an associate degree in the School of Engineering and Technology. For the associate degree, at least 6 out of the 15 credits are expected to be in the major. For the bachelor's degree, at least 12 out of the 32 credits are expected to be in the major at the junior level or higher.
5. Individual academic programs may require that transfer students complete specific courses prior to admission with advanced standing.
6. Transfer students must be in good academic and disciplinary standing at the college(s) previously attended. Students who have been dismissed for academic reasons by another college or university, or who have less than a 2.0 grade point average, must file a petition for readmission that will be reviewed by the Committee on Readmissions. The petition form may be obtained from the Office for Academic Programs, ET 215.

Transfer students may receive credit in the School of Engineering and Technology for successfully completed course work of equivalent amount and character from another accredited college. However, if a student changes to a different course of study in the process of transferring from another college or university, credits for certain courses may not be applicable toward requirements in the new curriculum.

Transfer credit is not granted for work done at institutions that are not fully approved by a regional accrediting association of secondary schools and colleges. In addition to regional association approval, certain programs may require accreditation by professional organizations and/or societies before credit will be considered for transfer. Credit will not be transferred from any institution whose regional accreditation designation is A/V (Associate/Vocational-Technical). The only exception is when agreements exist that specify courses or blocks of credit that will

transfer into specific Purdue University degree programs.

Graduates of unaccredited institutions, proprietary institutions, or institutions accredited only as occupational training institutions are encouraged to review their academic plans carefully before seeking advanced credit. All prospective transfer students are encouraged to write or visit the school for further information about their opportunities.

To Other Indiana University Campuses

Indiana University credits transferred from one campus of Indiana University to another will be evaluated and accepted in terms at least as favorable as credits transferred from other accredited institutions in the United States. No review of the credits will be undertaken except on good-faith terms, using the same criteria as those used in evaluating external credits.

Second Degrees or Additional Major Fields

Requirements for a Second Degree

Holders of bachelor's degrees who have additional academic objectives are generally encouraged to pursue appropriate graduate degree programs. Bachelor's degree holders may, however, obtain special permission to enroll in programs at either the associate or bachelor's degree level in the School of Engineering and Technology. Candidates must fulfill all academic requirements for the additional major field of study. Applicants for a second degree must complete a program of study that includes at least 32 credit hours for a bachelor's degree and at least 15 credit hours for an associate degree in the School of Engineering and Technology. For the associate degree, at least 6 out of the 15 credits are expected to be in the major. For the bachelor's degree, at least 12 credit hours must be in the major at the junior level or higher.

Graduates of the School of Engineering and Technology are permitted to pursue a second degree program.

Requirements for an Additional Major Field (Technology Programs Only)

Holders of Purdue University A.S. or B.S. degrees, whether from IUPUI or another campus, may enroll in technology courses typically taken by students completing degrees in a different major field. Upon successful completion of the requirements for the additional program, students will receive a notation on their transcripts that they have completed the equivalent of an additional major field of study.

Students working toward second degrees are required to complete all of the same courses in a plan of study as students majoring in the field for the same degree. The student may be required to complete a minimum number of credit hours that have not been used to fulfill requirements for any other major field of study or degree program.

Dual Majors and Dual Degrees

A student who will be completing the requirements for two or more degree programs simultaneously may be eligible to apply for more than one degree according to the following criteria:

1. If the degree programs are in different schools, the student must apply to each school for the appropriate degree. In the School of Engineering and Technology, the student must apply for the degree the semester prior to the one in which he or she expects to complete the degree requirements.
2. If the degree programs are both in the School of Engineering and Technology and lead to different degrees, the appropriate degrees shall be awarded.
3. In technology programs, students in all fields of study receive the same degree, an A.S. or a B.S. Therefore, a student who completes multiple fields of study will receive only one degree; the transcript will reflect the multiple fields of study.

Special Credit

Special credit by examination, by credentials, and/or by experience may be awarded in order to help qualified students earn their degrees more quickly. Each instructional department determines which of its courses are available for special credit and establishes procedures to determine student eligibility, administer evaluations for special credit, and grade them. The evaluations are as comprehensive as those given in the course and are graded as either satisfactory (performance comparable to that expected of students who receive A through C— in the course) or unsatisfactory. Newly admitted students or currently enrolled students who have not received a grade or directed grade other than W (Withdrawal) in the course may request an examination for credit.

Responsibility for initiating a request for special credit in a specific course normally rests with the student. To find out if special credit can be awarded, the student should consider meeting first with the department chair, advisor, or course instructor.

Admission of International Students

Applicants from other countries are considered for admission on the basis of credentials certifying the completion of secondary school. They are not required to take the Scholastic Assessment Tests (SAT) or the American College Test (ACT). Official translations must accompany transcripts and other credentials not written in English. The applicant must demonstrate adequate English proficiency for admission by submitting results from the Test of English as a Foreign Language (TOEFL). A TOEFL score of at least 500 (or 180 on the computer-based TOEFL) is required for regular admission to all undergraduate programs offered by the School of Engineering and Technology. All international undergraduate students must take the IUPUI English as a Second Language (ESL) placement test before they can register for classes. They will be placed in language classes based on their performance on this examination.

International student applicants must also furnish sufficient evidence of adequate financial support for the entire period of their schooling. International applicants should submit all credentials at least six months prior to the semester in which they want to enroll. Inquiries should be directed to the IUPUI

Office of International Affairs, 620 Union Drive,
Indianapolis, IN 46202-5167.

Admission as a Nondegree Student

Adults who want to study in any of the departments of the university without undertaking a regular plan of study and without becoming candidates for degrees may be admitted as nondegree students. Applicants must give evidence of prerequisite background for the course or courses in which they plan to enroll.

Applicants who do not have bachelor's degrees should apply to the Office of Admissions, Cavanaugh Hall, Room 129, 425 University Boulevard, IUPUI, Indianapolis, IN 46202-5140. Regardless of whether they plan to take undergraduate or graduate courses, applicants who have bachelor's degrees should apply to the IUPUI Graduate Office, Union Building 518, 620 N. Union Drive, IUPUI, Indianapolis, IN 46202-5167; telephone (317) 274-4023.

Auditing Courses

Auditors are students who want to take classes without receiving either credit or grades for these classes.

Auditors may attend lecture classes when they have paid the appropriate fees and identified themselves as auditors to the instructor. Auditors are not admitted in courses with a credit hour laboratory component.

Academic Advising and Counseling

Faculty, department chairs, and the Office for Academic Programs are available to provide information about programs of study and career opportunities in engineering and technology.

Students who are admitted to the School of Engineering and Technology are assigned an academic advisor in their major department. Before they meet with their advisor for initial counseling and registration, beginning and transfer students are required to participate in IUPUI's placement testing program. The Office of Admissions will inform the students of this procedure and scheduling. Faculty are available in each department to assist students in planning their academic programs to meet graduation requirements. *It is the student's responsibility to meet periodically with advisors in order to assess progress toward an academic goal.* Students may be required by departments to see an advisor each semester to plan their course schedules.

Undergraduate Admission Requirements

Admission is based on evidence presented by individual applicants to show that they are capable of profiting from and contributing to one of the academic programs of the school. Inquiries about admission to engineering and technology programs, as well as requests for admission applications, should be addressed to the Office of Admissions, Cavanaugh Hall 129, 425 N. University Boulevard, IUPUI, Indianapolis, IN 46202-5140.

Undergraduate Engineering Admission Requirements

In determining the qualifications of an applicant to undergraduate engineering programs, the Office of Admissions uses the following criteria:

1. Graduation from a high school accredited by a state Department of Public Instruction.
2. The extent to which the student meets or exceeds the following minimum requirements:
 - a. All applicants' high school records must include the following:

Subjects	Semesters
English	8
History or social studies	2
Algebra	2
Plane geometry	2
Advanced algebra	1
Trigonometry	1
Chemistry	2
Laboratory science	2
 - b. Your admission as a new student into the Purdue School of Engineering and Technology at IUPUI is determined by a combination of rank in class, test scores, probability of success, grade average in college preparatory subjects, grades in courses related to the degree objective, trends in achievement, completion of high school subject matter requirements, and the strength of the college preparatory program. All applicants who have not completed a full year of college work are required to take the SAT-I or the ACT.
 - c. All applicants who have not completed a full year of college work are required to take the College Entrance Examination Board (CECEB), Scholastic Assessment Test (SAT), or American College Test (ACT). For admission to the engineering programs, minimum SAT scores of 480 verbal and 520 mathematics or minimum ACT scores of 21 English and 23 mathematics are required.

Because of a limitation on the total number of students that may be accepted as beginners, out-of-state admissions may close at any time. When it becomes necessary to limit the number of Indiana residents accepted for a specific program, students will be offered admission to an alternate program or admission to the desired program for a subsequent semester.

Undergraduate Technology Admission Requirements

In determining the qualifications of an applicant to undergraduate technology programs, the Office of Admissions uses the following criteria:

1. Graduation from a high school accredited by a state Department of Public Instruction.
2. The extent to which the student meets or exceeds the following minimum requirements:
 - a. All applicants' high school records must include the following:

Subjects	Semesters
English	6
History or social studies	2
Algebra	2
Geometry	2
Laboratory science	2

- b. Indiana residents must rank in the upper half of their high school graduating class, and out-of-state residents must rank in the upper third of their high school graduating class.
- c. Your admission as a new student into the Purdue School of Engineering and Technology at IUPUI is determined by a combination of rank in class, test scores, probability of success, grade average in college preparatory subjects, grades in courses related to the degree objective, trends in achievement, completion of high school subject matter requirements, and the strength of the college preparatory program. All applicants who have not completed a full year of college work are required to take the SAT-I or the ACT.
- d. Graduates of State of Indiana high school tech prep programs are eligible for admission if they have successfully completed the equivalent tech prep courses listed in paragraph 2a above and have complied with the requirements of paragraphs 2b and 2c above.

Because of a limitation on the total number of students that may be accepted as beginners, out-of-state admissions may close at any time. When it becomes necessary to limit the number of Indiana residents accepted for a specific program, students will be offered admission to an alternate program or admission to the desired program for a subsequent semester.

Special Expenses

Fees and Payment Procedures

University Fees

All fees are due and payable by the due date on the student's schedule confirmation and are subject to change without notice by action of the Trustees of Indiana University. A complete listing of all fees is published for each term in the class schedule.

The following rates per credit hour, student technology fee rates, student activity fees, and athletic development fees were in force at the time of publication of this bulletin. For current listings of fees, consult your *Schedule of Classes*.

Rates per Credit Hour	Indiana Residents	Out-of-State Students
Undergraduate	\$127.95	\$398.00
Graduate Engineering	\$171.25	\$494.15

Extra laboratory fees may be charged when appropriate and when laboratory instruction is required.

Residency Status

The criteria for establishing in-state residency and thus qualifying for in-state fee rates are very strict. Inquiry about establishing resident status for fee purposes should be made to the registrar, who is the proper source of this information. Contact the Office of the Registrar, Cavanaugh Hall 133, 425 N. University Boulevard, IUPUI, Indianapolis, IN 46202-5144; telephone (317) 274-1501.

Athletic Development Fee

This mandatory fee of \$28.80 per semester is assessed on all students enrolled in credit courses held on campus. The athletic development fee is refundable on the same schedule as course fees upon withdrawal from campus courses. It is not assessed on students during the summer session enrollment periods.

Student Activity Fee

This mandatory fee is assessed on all students enrolling in credit courses held on campus. The student activity fee is refundable on the same schedule as course fees upon withdrawal from campus courses.

Student Technology Fee

Student Technology Fee income is used to fund technology resources that are directly accessible to students and of which students are the primary beneficiaries. *Resources* are interpreted to include not only technological equipment, but also personnel to support student use of the equipment. Guidelines for the allocation of Student Technology Fee funds by academic units require student participation in the planning process. Technology fees are based on your class standing as determined by your academic unit at the time the fees are assessed. The IUPUI semester technology fee schedules are as follows:

Undergraduate Technology Fee

Semester	Credit Hours	Rates
Fall or Spring	3 or fewer cr. hrs.	\$29.50
	More than 3 to 6 cr. hrs.	\$59.05
	More than 6 cr. hrs.	\$88.55
Summer Sessions	3 or fewer cr. hrs.	\$29.50
	More than 3 cr. hrs.	\$44.25

Graduate Technology Fee

Semester	Credit Hours	Rates
Fall or Spring	7 or fewer credit hrs.	\$43.65
	More than 7 cr. hrs.	\$93.45
Summer Sessions	7 or fewer credit hrs.	\$43.65
	More than 7 cr. hrs.	\$46.75

Late Enrollment and Late Program Change Fees

All classes are considered closed following final registration for a specific term. Schedule changes after that date are considered a special privilege and require special authorization and an additional fee. The student should refer to the appropriate class schedule for a listing of these charges.

The School of Engineering and Technology will not allow any student to register after expiration of the 100 percent refund period. (See "Refunds" in this section of the bulletin.)

Special Credit Fees

The Trustees of Indiana University have approved the following fee structure for special credit.

1. If the credit is awarded as a result of an examination within the first three semesters following matriculation, there is no charge.
2. If the credit is awarded as a result of an examination and the student is a first-semester transfer student, there is a \$17.60 charge per credit hour.
3. If the credit is awarded as a result of an examination and the student does not meet either

of the above conditions, the charge per credit hour is at the regular resident or nonresident rate.

4. If the credit is awarded as a result of experience or credentials, the student will be charged \$17.60 per credit hour.

Auditing Fees

An audit form must be presented to the Office of the Registrar from your school or division to audit a course for record. No grades or credits are received for audits. If a course is changed from credit to audit after the first week of classes, a late program change fee of \$19.50 will be assessed.

Students who desire an official record of auditing a particular course will be charged full tuition. Written permission from the instructor must be obtained before a student may register to audit. Courses with a laboratory component may not be audited.

Other Fees

Students may also be required to pay special fees for the following services: housing, locker rental, parking, recreation, student identification card (depending on enrollment status and anticipated use), and transcript request. A complete listing of special fees is provided each term in the IUPUI *Schedule of Classes*.

Payment Procedures

Payments must be made in cash or by bank draft, express order, postal money order, traveler's check, personal check, MasterCard, Visa, or Discover for the exact amount of fees due at the time of registration. No check for a greater amount will be accepted. All payments must be made to the bursar at the registration site. Students who register before or during final registration may be able to pay fees using the two-installment option. For information about this option, refer to the IUPUI *Schedule of Classes*.

Credit Cards Students may use MasterCard, Visa, or Discover for payment of university fees and housing. Both Visa and MasterCard are accepted by the IUPUI bookstores. In the event that a student under age 21 wishes to use one of the above credit cards belonging to a parent, bank regulations require prior authorization by the parent.

Refunds

Refund credits are determined by the date the drop activity is processed by the IUPUI Office of the Registrar. Refunds are based on the following schedule.

1. For withdrawal during the first week of classes or through the drop/add period—100 percent refund.
2. For withdrawal during the second week of classes—75 percent refund.
3. For withdrawal during the third week of classes—50 percent refund.
4. For withdrawal during the fourth week of classes—25 percent refund.
5. For withdrawal during the fifth week and thereafter—NO REFUND.

To be eligible for a refund, the student must officially notify the Office of the Registrar at the time of

withdrawal. Refund information for summer sessions and courses scheduled from 1 to 8 weeks in length is published in the IUPUI *Schedule of Classes*.

Financial Aid

It is the philosophy of IUPUI to encourage students in their educational goals and to reduce financial barriers. IUPUI recognizes that many students and their parents cannot afford to finance a college education entirely from their own income and assets. For this reason, a program of financial assistance is available to admitted and enrolled students who have a demonstrated financial need. Aid is available in the form of scholarships, grants, and loans.

Students desiring further information about any of the following financial aid programs should write to:

Office of Scholarships and Financial Aid
Cavanaugh Hall 103
425 N. University Boulevard
IUPUI
Indianapolis, IN 46202-5140
Telephone: (317) 278-FAST (278-3278)
Web: www.iupui.edu/~finaid

Application Procedures

Potential financial aid recipients must complete the Free Application for Federal Student Aid (FAFSA), which is available from high schools or the Office of Scholarships and Financial Aid. The priority application deadline for any summer session and/or the following academic year is March 1, although applications will be processed as long as funds are available. Students who apply late should plan on finding other funds to pay for tuition and books until their financial aid applications are processed.

Eligibility

Financial aid awards are given on the basis of need as determined by the information supplied on the FAFSA. IUPUI students enrolled for 6 or more credit hours are eligible if need is demonstrated. The amount of the award will be less for part-time students than for full-time students; full-time student status is considered to be 12 or more credit hours. Only regularly admitted students and transient students from Purdue University are eligible.

Types of Aid

Financial aid is generally offered as a package consisting of a combination of scholarships, grants, loans, and/or work-study awards, although awards may vary with individual students. All awards are subject to the availability of funds.

Scholarships

Scholarships are awarded on the basis of academic achievement. Sources of scholarships may be both inside and outside IUPUI. Scholarship awards are often not based on need, and the student does not pay back the award later. You will be contacted by IUPUI if you are eligible to apply for scholarships; if an application is required, it will be sent to you automatically.

Grants

Grants are awarded on the basis of need only and do not have to be repaid by the student.

Student Loans

Unlike scholarships and grants, loans must be repaid. Several different student loan programs are available at IUPUI. Some are based on financial need; some are not. Interest rates and maximum awards vary by program. Contact the Office of Scholarships and Financial Aid for details.

Part-Time and Summer Employment

Many students who attend IUPUI are able to earn part of their expenses through part-time and summer employment. The IUPUI Career Center, Business/SPEA Building 2010, 801 W. Michigan Street, (317) 274-2554, offers help in finding part-time jobs and maintains current information about part-time job opportunities. Students should contact this office for further information on employment assistance.

Work-Study Program

The Federal College Work-Study Program available at IUPUI was established by the Higher Education Act of 1965. The main purpose of the program is to give eligible students the chance to do paid work that will complement their academic programs and career aspirations. Students who have been admitted to IUPUI may apply through the Office of Scholarships and Financial Aid.

Veterans Benefits

Information on benefits, including Veterans Administration paid tutorial assistance and work-study opportunities, is available from the veterans affairs representative at the Office of the Registrar, Cavanaugh Hall 133, 425 University Blvd., IUPUI, Indianapolis, IN 46202-5144; (317) 274-1521 or (317) 274-1522.

Academic Policies and Procedures

Probation, Dismissal, Reinstatement

Academic Probation and Academic Dismissal

Academic standards for probation (warning status) and dismissal are established by the faculty for each specific academic program. Therefore, a student is subject to the regulations applicable to all students enrolled in a particular program at the time of registration. If students are experiencing academic difficulty, they are urged to consult their academic advisor as soon as possible.

Students will be notified by letter from the Office of the Associate Dean for Academic Programs, School of Engineering and Technology, when they are placed on academic probation. The letter will also inform the student of the conditions that must be met for removal from academic probation. Students who are dismissed for academic reasons will also be notified by letter from the Office of the Associate Dean for Academic Programs.

The following standards are currently applicable for students enrolled in the School of Engineering and Technology.

Academic Probation

Full-time students are automatically on academic probation when either the cumulative semester index or the semester index is below 2.0 (C). Part-time students are automatically on academic probation when either the cumulative semester index or the grade point average for the last 12 credit hours of consecutive enrollment is below 2.0 (C). All students on probation are automatically placed on academic checklist. Students on checklist must obtain the signature of a departmental advisor in order to register.

Students who, in subsequent enrollments, do not improve significantly may receive a letter stating that they will be subject to dismissal if an index of 2.0 (C) or higher is not earned in the current enrollment period. Such students may register *only after their grades have been posted* and their departmental checklist clearance form has been approved by the dean.

Removal from Probation

Students are removed from academic probation when they complete 12 credit hours of consecutive enrollment with a minimum grade point average of 2.0, provided their overall grade point average is also at or above 2.0.

Academic Dismissal

Full-time students may be dismissed when they fail to attain a 2.0 semester grade point average in any two consecutive semesters or when their cumulative semester index has remained below 2.0 (C) for any two consecutive semesters. Part-time students may be dismissed when their cumulative semester index or grade point average for the last 18 credit hours of consecutive enrollment is below 2.0 (C).

Readmission

A student who has been dropped due to scholastic deficiency may petition the Faculty Committee on Readmission for readmission. If readmitted, the student will be placed on probation. Students may contact the particular department for specific rules and regulations.

Acceptance of Grade Replacement, Forgiveness, Repeating Courses, Audit

Repeated Courses (Grade Replacement Policy)

Students enrolled in the School of Engineering and Technology are permitted to apply only the provisions of the IUPUI Grade Replacement Policy that pertain to repeating a course in order to achieve a higher grade. This replacement will affect a student's academic

record only at the Purdue School of Engineering and Technology at IUPUI. If the student subsequently transfers to another academic unit at IUPUI or another campus, different interpretations of the grade replacement policy may be in place.

An undergraduate student who retakes any course may elect to have only the final grade counted in computation of the cumulative semester index, in accordance with the limitations listed below. After retaking the course, the enrollment and original grade will be removed from calculations used to determine the student's cumulative GPA. The student's transcript, however, will continue to show the original enrollment in the course and all grades earned for each subsequent enrollment.

This policy is subject to the following limitations:

1. Students may exercise the grade replacement option for no more than 15 credit hours, including any courses in which the former FX option was used.
2. A grade may be replaced only by another grade *for the same class*.
3. A student may exercise the Grade Replacement Policy a *maximum of two times* for a single course.
4. The request to remove a grade from the cumulative GPA calculation by this method is irreversible.
5. The second enrollment for any course covered by this policy must have occurred during fall semester 1996 or later.

Students who plan to use the grade replacement option must inform the engineering and technology recorder after they have retaken a course and wish to apply the policy.

Determination of GPA (If Different from IU/Campus Method)

Academic Regulations

Grades and Grade Reports

Students are responsible for completing all required work in each of their courses by the last scheduled class meeting, unless course assignments have been properly cancelled. Students receive a grade in each course in which they are enrolled at the close of the session. Grades indicate what a student has achieved with respect to the objectives of the course, and instructors are required, by action of the Faculty Senate, to record the grade a student has earned in a course. Grades that have been officially recorded will be changed only in cases of instructor error or subsequent finding of student academic dishonesty.

Basis of Grades

The School of Engineering and Technology uses a grading system that may include plus and minus grades as well as straight letter grades for all undergraduate and graduate courses. These grades and their grade point values are indicated below.

1. For credit courses:

A or A+	4.0
A-	3.7
B+	3.3
B	3.0
B-	2.7
C+	2.3
C	2.0
C-	1.7
D+	1.3
D	1.0
D-	0.7
F	0.0 (no credit)

2. For credit courses taken under the Pass/Fail option:

P: Pass; equivalent to grade A through D- (no grade point value assigned).

F: Failure; failure to achieve minimal objectives of the course. The student must repeat the course satisfactorily in order to obtain credit for it. The F is factored into the student's grade point average.

3. For noncredit courses including thesis research:

S: Satisfactory; meets course objectives (no grade point value assigned).

F: Unsatisfactory; does not meet course objectives (is factored into grade point average).

Note that no separate grades are given for course laboratory sections that have been given separate course designations for scheduling purposes.

4. Incomplete, Deferred, or Withdrawal grades for credit or noncredit courses (no grade point value assigned):

I: Incomplete, no grade; a temporary record indicating that the work is satisfactory as of the end of the semester but has not been completed. The grade of Incomplete may be assigned only when a student has successfully completed at least three-fourths of the work in a course and unusual circumstances prevent the student from completing the work within the time limits previously set. An instructor may require the student to secure the recommendation of the dean that the circumstances warrant a grade of Incomplete. When an Incomplete is given, the instructor will specify the academic work to be completed and may establish a deadline of up to one year. If the student has not completed the required work by the end of the following year, the registrar will automatically change the I to an F.

R: Deferred; a grade given for those courses that normally require more than one academic session to complete, such as project, thesis, and research courses. The grade indicates that work is in progress and that the final report has not been submitted for evaluation.

W: Withdrawal; a grade of W is recorded on the final grade report.

Withdrawing from Classes

During the first half of a semester or session, students may officially withdraw from classes without penalty if they obtain the approval of their advisor. During the third quarter of a semester or session, students may withdraw from classes if they obtain the approval of their advisor and the appropriate instructors; during

the last quarter of the semester, students will be allowed to withdraw from classes only under extenuating circumstances. At that time they must obtain the approval of the appropriate instructors, their advisor, and the dean, and must also present a written justification from a doctor, member of the clergy, advisor, or similar person of authority. *The fact that a student merely stops attending a class will not entitle the student to a grade of W.*

Uses of the Pass/Fail Option

To provide students with the opportunity to broaden their education with less worry about the grades they may earn, an alternate grading system, the Pass/Fail option, is permitted for a limited portion of the required credit hours. The following general rules are currently applicable; individual departments may impose further restrictions.

1. Subject to the regulations of divisions or departments, students may choose this option in any course that does not already appear on their academic record and that they are otherwise eligible to take for credit with a letter grade. Students may use this option for not more than 20 percent of the total credit hours required for graduation.
2. Students taking a course under this option have the same obligations as those taking the course for credit with a letter grade. When instructors report final grades in the course, any student who would have earned a grade of A through D- will receive a P, and any student who has not passed will receive an F. The registrar will note either result on the student's academic records, but will not use the course in computing the grade point average unless the student receives an F.
3. This option is not available to students on probation.
4. This option is available for a maximum of two courses in any one semester and one course during a summer session.
5. Students receiving the grade of Pass in a course taken under the Pass/Fail option may not retake the same course for a letter grade.
6. Courses taken under Pass/Fail option and courses taken by correspondence may not be used to fulfill graduation requirements for engineering students. Whether the courses are accepted for technology students is up to each major department.

These rules are general or minimum guidelines for those electing this option. There are certain specific limitations on registration for the Pass/Fail option. This option may be elected only during continuing student registration, late registration, and the drop/add period at the beginning of a semester or session. Changes from letter grade to Pass/Fail and vice versa may not be made after the second week of classes during the regular semester or after the first week of classes during the summer sessions.

Absence from Campus

Students who interrupt their course of study for more than one calendar year may be required to meet all departmental curriculum requirements for the program offered at the time of their return.

Scholastic Indexes

The scholarship standing of all undergraduate degree regular students is determined by two scholastic indexes: the semester index and the graduation index.

Semester Index

The semester index (semester grade point average) is an average determined by weighting each grade received (4.0 for an A, 3.7 for an A-, etc.) during a given semester and multiplying it by the number of credit hours in the course, adding up all the figures, and then dividing the sum by the total number of course credit hours obtained during that semester. Grades of P and S are not included in the computation; grades of F are included. The cumulative semester index is the weighted average of all courses taken by a student, except those to which the FX policy is applied. See "Repeated Courses (FX Policy)" above in this section of the bulletin.

Graduation Index

The graduation index (degree grade point average) is the weighted average of grades in only those courses that are used to meet the graduation requirements for the program in which the student is enrolled. When a student retakes a course with the advisor's approval or later substitutes an equivalent course for one previously taken, only the most recent course grade is used by the school in calculating the graduation index. Since certain courses previously completed by the student may on occasion be omitted from a program of study, the graduation index and the cumulative semester index may differ.

Graduation Index Requirements

For all bachelor's degrees in the School of Engineering and Technology, a minimum graduation index of 2.0 is required for graduation. Candidates for graduation from engineering programs must also have an index of 2.0 for all required engineering courses.

For the Associate of Science degree, a minimum graduation index of 1.9 is required for graduation.

Good Standing

For purposes of reports and communications to other institutions and agencies and in the absence of any further qualification of the term, students are considered in good standing unless they have been dismissed, suspended, or dropped from the university and have not been readmitted.

Graduation Requirements for Undergraduates**Undergraduate Engineering Requirements**

To earn a Bachelor of Science in Engineering (B.S.E.), Bachelor of Science in Computer Engineering (B.S.Cmp.E.), Bachelor of Science in Electrical Engineering (B.S.E.E.), or Bachelor of Science in Mechanical Engineering (B.S.M.E.) degree, students must satisfy the following requirements. Requirements for graduation include receiving credit in all required courses—at least 129 credit hours in the computer engineering program, 129 credit hours in the

electrical engineering program, 131 credit hours in the engineering management program, 130 credit hours in the interdisciplinary engineering program, or 130 credit hours in the mechanical engineering program.

Each student must have an approved plan of study that lists all courses for the specific degree program. Students should prepare their plans of study for approval during the junior year. If a student wants to deviate from the published curricula, written permission of the administrator of the program is required.

Additional requirements include the following:

1. Students must complete the program of study for the degree by resident course work, by examination, or by credit accepted from another institution. The dean may refuse to accept as credit toward graduation any course that was completed 10 or more years previously, and former students will be notified of all such decisions upon reentering. Substitution of courses required for graduation may be made by the dean of the school.
2. Students must complete at least two semesters of resident study at IUPUI, and they must complete at least 32 credit hours of appropriate course work, of which 12 credit hours must be completed in the major at the junior level or higher. Students are also expected to complete the senior year in residence; however, with the approval of the dean, students who have had at least four semesters of resident study may complete a maximum of 20 credit hours of the senior year in another approved college or university. For the purpose of this rule, two summer sessions are equivalent to one semester.
3. Students must be registered in the School of Engineering and Technology, either in residence or in absentia, during the semester or summer session immediately preceding the awarding of the degree.
4. Students must have a graduation index of 2.0 in required engineering courses in addition to an overall graduation index of 2.0 for all courses on the approved plan of study. Students who have completed all other requirements for a bachelor's degree but have failed to meet the minimum graduation index may register for additional courses, with the approval of an authorized representative of the dean, after a review of their record. The additional courses may not exceed 20 credit hours. Students may take a maximum of 9 of the 20 credit hours in another approved college or university, provided the courses are approved in advance and in writing by an authorized representative of the dean of the School of Engineering and Technology. A copy of the approval must be filed in the office of the engineering and technology recorder. Credit in these additional courses must be established within five years of the date on which all other degree requirements were met. Students will have fulfilled the requirements for graduation if graduation indexes, including extra courses, equal or exceed the minimum specified at the time when all other graduation requirements were satisfied.

5. Applicants for a second bachelor's degree, after they are admitted to the second bachelor's degree program, must complete at least 32 credit hours of appropriate course work, of which 12 credit hours must be completed in the major at the junior level or higher.
6. Courses taken under the Pass/Fail option and courses taken by correspondence may not be used to fulfill graduation requirements for engineering students.

Undergraduate Technology Requirements

Associate Degree

To earn an Associate of Science (A.S.) degree, students must satisfy the following requirements:

1. Students must complete the plan of study for the degree by resident course work, by examination, or by credit accepted from another institution. The dean of the school may refuse to accept as credit toward graduation any course that was completed 10 or more years previously, and former students will be notified of all such decisions upon reentering. Substitutions of courses required for graduation may be made by the dean of the School of Engineering and Technology.
2. Students must complete at least two semesters of resident study at IUPUI, and they must complete at least 15 credit hours of appropriate course work, of which 6 credit hours must be in the major. Students are generally expected to complete the entire second year in residence; however, with the approval of the dean of the school, students who have at least three semesters of resident study may complete a maximum of 16 credit hours of the second year in another approved college or university. For the purpose of this rule, two summer sessions are considered equivalent to one semester.
3. Students must be registered in the School of Engineering and Technology, either in residence or in absentia, during the semester or summer session immediately preceding the award of the degree.
4. Students must have a minimum graduation index of 1.9. Students who have completed all other requirements for an A.S. degree but have failed to meet the minimum graduation index (the average of grades earned in courses required for a degree) may register for additional courses, with the approval of an authorized representative of the dean of the school, after a review of their record. These additional courses may not exceed 10 credit hours, and credit in these courses must be established within three years of the date on which all other degree requirements were met. Students will have fulfilled the requirements for graduation if their graduation indexes, including the extra courses, equal or exceed the minimum specified at the time when all other graduation requirements were satisfied.
5. Applicants for a second A.S. degree must complete at least 15 credit hours at IUPUI of appropriate course work after admission to the second associate degree program. At least 6 of the 15

credit hours must be completed in the major. A second associate degree may not be earned in the same program.

Bachelor's Degree

To earn a Bachelor of Science (B.S.) degree, students must satisfy the following requirements.

1. Students must complete the program of study for the degree by resident course work, by examination, or by credit accepted from another institution. The dean may refuse to accept as credit toward graduation any course that was completed 10 or more years previously, and former students will be notified of all such decisions upon reentering. Substitution of courses required for graduation may be made by the dean of the school.
2. Students must complete at least two semesters of resident study at IUPUI, and they must complete at least 32 credit hours of appropriate course work, of which 12 credit hours are required to be in the major at the junior level or higher. Students are generally expected to complete the senior year in residence; however, with the approval of the dean, students who have had at least four semesters of resident study may complete a maximum of 20 credit hours of the senior year in another approved college or university. For the purpose of this rule, two summer sessions are considered equivalent to one semester.
3. Students must be registered in the School of Engineering and Technology, either in residence or in absentia, during the semester or summer session immediately preceding the awarding of the degree.
4. Students must have a minimum graduation index of 2.0. Students who have completed all other requirements for a bachelor's degree but have failed to meet the minimum graduation index may register for additional courses, with the approval of an authorized representative of the dean, after a review of their record. The additional courses may not exceed 20 credit hours. Students may take a maximum of 9 of the 20 credit hours in another approved college or university, provided the courses are approved in advance and in writing by an authorized representative of the dean of the School of Engineering and Technology. A copy of the approval must be filed in the Office of the Recorder. Credit in these additional courses must be established within five years of the date on which all other degree requirements were met. Students will have fulfilled the requirements for graduation if graduation indexes, including extra courses, equal or exceed the minimum specified at the time when all other graduation requirements were satisfied.
5. Applicants for a second bachelor's degree must complete at IUPUI at least 32 credit hours of appropriate course work after they are admitted to the second bachelor's degree program. At least 12 of the 32 credit hours must be completed in the major at the junior level or higher.

Engineering and Technology Minors

Minimum criteria for academic minors offered within the School of Engineering and Technology will include an overall 2.0/4.0 GPA and a grade of C– or above for each course required for the minor and at least one-half of the required courses for the minor will be completed in residency at IUPUI. Any courses, e.g., Web-based courses or courses via the Internet, delivered by an IUPUI school are considered to be residence courses for this purpose. The academic requirements for each minor offered by the school will consist of at least 21 semester hours.

Certificate Programs

Students who are seeking one of the certificate programs offered by the School of Engineering and Technology must qualify for admission under the published criteria for one of the academic units at IUPUI and must complete at least one-half of the academic requirements for that certificate after admission to that certificate program. Although there are several admission and/or enrollment options open to certificate students, it is expected that all of this remaining course work will be in courses taught by one or more of the IUPUI academic units. Any courses, e.g., Web-based courses or courses via the Internet, delivered by an IUPUI school are considered to be residence courses for this purpose.

Employment Enrichment Programs

Good career opportunities almost always require previous work experience. While earning a degree at the Purdue School of Engineering and Technology, Employment Enrichment Programs may provide essential opportunities to launch a career.

The lessons you learn in classes and laboratories receive their ultimate test through the school's cooperative education, internship, professional work experience, and international student exchange programs. We interact with a broad variety of area companies to provide the technical experience required to succeed in today's globally competitive economic markets.

The Cooperative Education Program (Co-op) is a five-year professional development experience, designed to combine practical on-the-job experiences with the classroom training of a four-year college curriculum; the Internship Program allows students to work full time or part time for an employing organization while simultaneously taking courses during one semester. This program allows flexibility for students that may wish to obtain work experience, but are not able to take a semester away from school as is required in the co-op program.

The greater metropolitan Indianapolis community offers extensive professional, governmental, and manufacturing resources, which provide a number of employment enrichment opportunities. Our community resources provide rich, practical, well-

paid professional opportunities usually unavailable at residential campuses.

After you have satisfactorily completed the freshman year of your academic program, you may have a choice of employment programs to meet your needs.

Eligibility

To be eligible for one of the Employment Enrichment Programs, you must

Be admitted to the Purdue School of Engineering and Technology, IUPUI.

Be enrolled in one of the academic programs offered by the school.

Continue in one of our Bachelor of Science degree programs.

Have satisfactorily completed the freshman year of your academic program.

Meet and maintain minimum GPA requirements.

Register for the appropriate Employment Enrichment Programs course before each work period.

Satisfactorily complete the work period requirements.

Attend a Co-op/Internship orientation session.

During your periods of professional employment, you will earn a competitive salary and may also earn academic credit toward your bachelor's degree. The amount and distribution of credit is determined by your academic department. For further information, contact the Office for Academic Programs, Engineering and Technology Building (ET) 215, 799 W. Michigan Street, IUPUI, Indianapolis, IN 46202-5160; (317) 278-1000.

Graduate Engineering Programs

Nasser Paydar, Associate Dean for Academic Programs

The school offers six graduate degrees: the Doctor of Philosophy in Biomedical Engineering (Ph.D.), Master of Science in Biomedical Engineering (M.S.Bm.E.), Master of Science in Electrical and Computer Engineering (M.S.E.C.E.), Master of Science in Mechanical Engineering (M.S.M.E.), Master of Science in Engineering (M.S.E.), and Master of Science (M.S.). Qualified students may be authorized to pursue the Ph.D. degree in electrical and computer engineering or mechanical engineering at IUPUI. Programs leading to the Ph.D. in electrical engineering and in mechanical engineering are administered with the respective approval of the School of Electrical Engineering and the School of Mechanical Engineering at Purdue University, West Lafayette. Students are usually expected to complete the M.S.E.C.E. or M.S.M.E. before pursuing the Ph.D. degree.

Students completing a master's or doctoral degree in engineering will be prepared to enter the work force at a high level of responsibility and expertise. Knowledge of the dynamics of expanding new technologies and the strategic importance of high productivity prepares master's degree graduates to advance rapidly in today's business and industries.

Graduate courses are usually offered on the IUPUI evening schedule. The programs are designed to meet

the needs of part-time students employed in the Indianapolis area, as well as traditional students who are preparing for careers in research-directed areas.

For more information, call (317) 278-4960, or send e-mail to et_grad@iupui.edu or see the Web site: www.engr.iupui.edu

Scholarships and Awards

The Purdue School of Engineering and Technology offers scholarships through IUPUI's Office of Student Scholarships. Early admission to IUPUI is the best way to be assured of scholarship opportunities. The Purdue School of Engineering and Technology offers scholarships to incoming freshmen and continuing students. Most scholarships are merit-based awards offered at the departmental level but some are designated specifically for new students, or for minority, women, and other students from underrepresented populations. The following is a list of some available scholarships. For additional information, please consult the *Beginning Freshman Admissions Guide and Financial Aid Information* published by the Office of Admissions, or you may contact the Office of the Dean.

Scholarships for New Students

General Engineering and Technology Scholarship
Minority Engineering Advancement Program (MEAP)
Women in Engineering and Technology

Scholastic Recognition

Dean's List

At the conclusion of each semester, the recorder of the Office of Academic Programs determines which undergraduate students have earned grades reflecting outstanding scholastic work during the semester. The names of these students are publicly recognized and are posted in the school and on the school's Web pages. In addition, various activities are conducted to honor the academic success of qualifying students. The Dean's List is not compiled for summer sessions. In order to qualify for the Dean's List for a given semester, students must meet all the following requirements:

1. Earn a semester grade index of 3.5 or higher.
2. Complete all courses in which they were enrolled at the end of the semester with a grade of C or higher, R, or P.
3. Complete at least 6 credit hours for a letter grade. A letter grade is an A, B, C, D (including +/–), F, or P, but not R.
4. Complete a minimum of 15 credit hours while registered as a student in the School of Engineering and Technology, including the credit hours earned in the semester under consideration.
5. Earn a semester grade point average that places the student in the top 10 percent of all students in the department or division who have completed at

least 6 credit hours for a letter grade (as defined in item 3) that semester.

Graduation with Distinction

By awarding degrees “With Distinction” or “With Highest Distinction” the School of Engineering and Technology recognizes the outstanding scholastic achievement of selected associate and bachelor’s degree candidates.

Distinction at graduation is awarded on the basis of all course work taken for letter grades. Individuals must complete all the requirements for their field of study and meet the following conditions:

1. A candidate for the bachelor’s degree with distinction must have earned at least 65 hours of credit in the Purdue University or Indiana University system. A candidate for an associate degree with distinction must have earned at least 35 hours of credit in the Purdue University or Indiana University system.
2. Honors are awarded according to the following cumulative semester grade point averages:
Top 10 percent—With Distinction
Top 30 percent of the top 10 percent—With Highest Distinction

Note: For the purpose of determining graduation honors, the calculated cumulative semester grade point average includes *all* courses taken for a grade in either the Purdue or the Indiana University system, regardless of when the courses were taken.

Students who are awarded their degrees with distinction receive corresponding diplomas and are given special recognition during the annual commencement exercise.

School or Program Clubs

Engineering and Technology Student Societies

Engineering and technology students have the opportunity to participate in the activities of the following student society chapters:

American Foundrymen’s Society
American Institute for Aeronautics and Astronautics (AIAA)
American Society of Mechanical Engineers (ASME)
Association for Computing Machinery (ACM)
Engineering and Technology Student Council
Engineering Graduate Student Organization
Institute of Electrical and Electronics Engineers (IEEE)
National Society of Black Engineers (NSBE)
National Society of Professional Engineers
Society of Automotive Engineers (SAE)
Society of Human Resource Management (SHRM)
Society of Manufacturing Engineers
Society of Student Constructors

Society of Women Engineers (SWE)
Student Design Organization (SDO)
Tau Alpha Pi

Minority Engineering Advancement Program (MEAP)

The Minority Engineering Advancement Program (MEAP) was established in 1974 to encourage minority students to pursue studies in engineering and engineering technology. Through the annual MEAP summer workshops, the school identifies and recruits talented secondary school students and provides them with information about engineering careers and college requirements. Since 1976, more than 100 students have participated each summer in the program.

MEAP also provides counseling and tutor referral service to minority undergraduates enrolled in the School of Engineering and Technology. In addition, scholarships and grants are available to American Indian, African American, and Hispanic students, people from groups that have been historically underrepresented in engineering. For more information, students should contact the Office for Academic Programs, School of Engineering and Technology, 799 W. Michigan Street, IUPUI, Indianapolis, IN 46202-5160; www.engr.iupui.edu/meap; telephone (317) 274-2943.

Opportunities to Study Abroad

The School of Engineering and Technology offers credit and noncredit internship opportunities abroad. Internships are full-time positions, and work assignments last from the middle of May until the middle of July. These internships allow students to gain technical experience in international companies, knowledge of a foreign culture, improved foreign language skills, and other benefits of an intercultural experience. Juniors or seniors with grade point averages of 3.0 or higher and specific language skills are eligible to apply. Participants receive a stipend to cover a major part of their expenses. Living accommodations are arranged, usually with a host family. Free time for travel, study, and recreation is available at the end of the program. For more information, contact the Office for Academic Programs, School of Engineering and Technology, 799 W. Michigan Street, Indianapolis, IN 46202-5160; telephone (317) 274-2533.

General-Education Program

Each engineering program requires a specific number of general-education courses. Eight credit hours are required in communications courses: ENG W151, COMM R110, and TCM 360. A 1-credit hour course in engineering ethics (ECE 401 or ME 401) is also required. Other courses in humanities and social sciences must be selected from approved lists available in each engineering department.

Specific Degree Tracks

Undergraduate Engineering Programs

Programs for full-time students pursuing bachelor’s degrees in engineering are presented in this section. The admission requirements, curricula, graduation requirements, and course descriptions of each program listed are those that were in effect at the time of printing and may subsequently change. Students are encouraged to obtain the latest course and curriculum information from their academic advisors.

The following undergraduate engineering degree programs are available in the School of Engineering and Technology:

Degree Program	Administered by
Bachelor of Science in Computer Engineering (B.S.Cmp.E.)	Department of Electrical and Computer Engineering
Bachelor of Science in Engineering (B.S.E.) (Interdisciplinary Engineering)	Department of Electrical and Computer Engineering
Bachelor of Science in Engineering (B.S.E.) (Interdisciplinary Engineering)	Department of Mechanical Engineering
Bachelor of Science in Electrical Engineering (B.S.E.E.)	Department of Electrical and Computer Engineering
Bachelor of Science in Mechanical Engineering (B.S.M.E.)	Department of Mechanical Engineering

Undergraduate Engineering Curriculum

All the undergraduate engineering curricula in this bulletin are presented as four-year programs. Well-qualified students with excellent high school preparation should be able to complete all requirements in four years or less. Students with gaps in their high school preparation or those who participate in the Cooperative Education Program may require more time to complete their degrees. Other students may adjust their semester credit loads to maintain employment or for other reasons. Programs can be tailored for part-time and evening students, as classes are scheduled for both day and evening. Part-time and evening students are urged to consult their advisors to avoid future scheduling problems.

It is important for students to recognize that some flexibility is provided in each of the curricula to allow for individual differences in backgrounds and academic goals. It is the student’s responsibility to

consult with an academic advisor to design a program to fit personal needs.

Creative accomplishment in an engineer's career often derives from an education that stresses major ideas and fundamental concepts of engineering rather than specific technologies. The engineering curricula provide wide experience in the mathematical, physical, and engineering sciences as well as in the social sciences and the humanities. In this way the student obtains both thorough training in engineering and a well-rounded education. Such an approach provides the best preparation for the engineer, who must envision and develop the technologies of the future and deal with scientific advances.

Engineers are responsible for translating the ever-expanding reservoir of scientific knowledge into systems, devices, and products and for further expanding knowledge. To meet these responsibilities, those who are learning to be engineers must not only master the ideas of others but must also originate new ideas. Moreover, although engineers deal extensively with facts and scientific fundamentals as a matter of course, they cannot rely on these alone. Engineers inevitably face decisions that cannot be made on the basis of technical skill, but that require a broad understanding of human values and behavior as developed by studies in the social sciences and humanities. They must also be able to accommodate situations where judgment and wisdom, combined with scientific knowledge or technical skill, can provide a solution.

Freshman Engineering Program

Director of Freshman Engineering Lamm

Lecturer Gee

Freshman Engineering Counselor Meyer

All qualified students interested in pursuing an engineering degree at IUPUI are admitted to the Freshman Engineering Program. This includes second degree and transfer students as well as beginning students.

While in this program, beginning students complete the basic sequence of courses common to all engineering majors. These courses include calculus I and II, chemistry and physics for science and engineering majors, English composition, and public speaking. Freshman engineering courses taken by all students include: ENGR 195 Introduction to the Engineering Profession, ENGR 196 Introduction to Engineering and ENGR 197 Introduction to Programming Concepts. The Freshman Engineering Program provides students with an opportunity to explore the various engineering disciplines before making a commitment to a specific curriculum.

Transfer and second degree students remain in Freshman Engineering until the evaluation of their transfer credits is completed.

The Office of Freshman Engineering has a full-time staff available year round. Prospective students and their families are invited to contact Freshman Engineering regarding any questions they may have concerning engineering and the engineering degree programs offered at IUPUI. The advisors in Freshman Engineering provide academic counseling and advising to prospective and continuing students. New students in engineering receive individualized attention while completing the basic core of freshman engineering courses. Transfer and second degree students likewise work closely with Freshman Engineering advisors until all transfer credit issues are resolved. The office has an open door policy, and students are encouraged to consult with advisors about any issues that may affect their academic progress.

Minor in Business for Engineering Students

The Indiana University Kelley School of Business and the School of Engineering and Technology have established a minor in business for engineering students. To qualify for the minor, students must meet course prerequisites and entrance requirements. In certain cases, substitutions are permitted for some requirements. Please consult with a Kelley School of Business academic advisor for more information (274-2147). Application deadlines are March 1 for the summer and fall semesters, and October 1 for the spring semester. Applications are available in the undergraduate office, Indiana University Kelley School of Business, Business/SPEA Building 3024.

Department of Electrical and Computer Engineering

Professors Berbari, Y. Chen, Y. P. Chien, Eberhart (*Chair*), El-Sharkawy, Needler, Rizkalla, Sinha, Yokomoto, Yurtseven

Associate Professors Lyshevski, Ramos

Assistant Professors Ben-Miled, Kim, Salama, Schild

Adjunct Faculty Analoui, Rajashekara, Svirsky

The Department of Electrical and Computer Engineering offers programs at the bachelor's, master's, and doctoral levels. At the bachelor's degree level, the department offers programs leading to the Bachelor of Science in Engineering (B.S.E.), Bachelor of Science in Computer Engineering (B.S.Cmp.E.), and Bachelor of Science in Electrical Engineering (B.S.E.E.) degrees. The B.S.E. degree program is designed for students who desire broad flexibility and the opportunity for interdisciplinary study; it does not have a designated professional curriculum. Additional information about the B.S.E. program can be obtained from the faculty in the Department of Electrical and Computer Engineering. The programs leading to the

B.S.E.E. and B.S.Cmp.E. are described in this section. Graduate programs in electrical and computer engineering are described in the section entitled "Graduate Engineering Programs" in this bulletin.

Electrical and Computer engineering programs are designed to prepare students for careers in the commercial, government, and academic sectors, where electrical and computer engineering expertise is needed in hardware and software design, information processing, circuit and electronic design, control and robotics, communications, biomedical engineering, energy systems, and manufacturing. Programs in the department are enhanced by interaction with local industry. Students have direct and routine access to full-time faculty, which further strengthens and accelerates the learning process. These advantages and the metropolitan environment of the university lead to an application-oriented, practical education that prepares students for success.

The Department of Electrical and Computer Engineering regards research as an important catalyst for excellence in engineering education. Graduate research and undergraduate design projects in the areas of signal processing, image processing, artificial intelligence, networking, software engineering, embedded systems, high performance computing, control, biomedical engineering, robotics, manufacturing, and electronics offer opportunities for applying and deepening students' expertise.

An undergraduate education in electrical and computer engineering provides a strong foundation in mathematical, physical, and engineering sciences. In acquiring this knowledge, students must also develop problem-solving skills. In addition, the general-education courses in the program provide the communication skills and appreciation of human and social issues necessary to translate engineering achievements into advances for society.

For more information, contact the Department of Electrical and Computer Engineering at (317) 274-9726.

Bachelor of Science in Electrical Engineering

Accredited by the Engineering Accreditation Commission of the Accreditation Board for Engineering and Technology, Inc. (ABET), 111 Market Place, Suite 1050, Baltimore, MD 21202, (410) 347-7700.

The B.S.E.E. degree prepares students for career opportunities in the hardware and software aspects of design, development, and operation of electronic systems and components, hardware and software design, control and robotics, communications, digital signal processing, and energy systems. Challenging positions are available in the government, commercial, and education sectors, in the areas of electronics, communication systems, signal and information processing, power, automation, robotics and manufacturing, control, networking, information processing, and computing. Within these areas, career

opportunities include design, development, research, manufacturing, marketing, operation, field testing, maintenance, and engineering management.

The minimum number of credit hours for graduation is 126, distributed as follows for each discipline:

1. Mathematics and Physical Sciences	
a. Calculus: MATH 163, 164, 261, and 262	18
b. Chemistry: CHEM C105	3
c. Physics: PHYS 152 and 251	9
2. Communications and Ethics	
a. Speech: COMM R110	3
b. Writing: ENG W131	3
c. Communication in Engineering Practice: TCM 360	2
d. Engineering Ethics and Professionalism: ECE 400 and 401	2
3. Humanities and Social Sciences	
a. Electives	15
4. Freshman Engineering Courses	
a. Introduction to the Engineering Profession: ENGR 195	1
b. Introduction to Engineering: ENGR 196	3
c. Programming Concepts: ENGR 197	3
5. Engineering Science	
a. Circuits: ECE 201, 202, and 207	7
b. Systems and Fields: ECE 301, 302, and 311	9
c. Unrestricted Elective	3
d. C Programming: ECE 264	2
6. Engineering Design	
a. Electronics: ECE 208 and 255	4
b. Digital Systems: ECE 266, 267, and 362	8
c. Communication Systems: ECE 440	4
d. Control Systems: ECE 382 and 340	6
e. Capstone Design: ECE 492	3
f. Design Electives	15
7. Science/Technical Elective	3
	<u>126</u>

Semester by semester, the 126 total credit hours should be distributed like this:

Freshman Year

First Semester

ENGR 195 Introduction to the Engineering Profession	1
ENGR 196 Introduction to Engineering	3
CHEM C105 Chemical Science I	3
MATH 163 Integrated Calculus and Analytic Geometry	5
COMM R110 Fundamentals of Speech Communication	3
	<u>15</u>

Second Semester

ENGR 197 Programming	3
PHYS 152 Mechanics	4
ENG W131 Elementary Composition I	3
Math 164 Integrated Calculus and Analytic Geometry II	5
Humanities or Social Science Elective ¹	3
	<u>18</u>

Sophomore Year

Third Semester

ECE 201 Linear Circuit Analysis I	3
ECE 207 Electronic Measurement Techniques	1
ECE 264 Advanced C Programming	2
PHYS 251 Electricity and Optics	5
MATH 261 Multivariate Calculus	4
	<u>15</u>

Fourth Semester

ECE 202 Circuit Analysis II	3
ECE 208 Electronic Design and Devices Lab	1
ECE 255 Introduction to Electronics Analysis and Design	3
ECE 266 Digital Logic Design	3
ECE 267 Digital Logic Design Laboratory	1
MATH 262 Linear Algebra Differential Equations	4
Humanities or Social Science Elective ¹	3
	<u>18</u>

Junior Year

Fifth Semester

ECE 301 Signals and Systems	3
ECE 311 Electric and Magnetic Fields	3
ECE 362 Microprocessor Systems and Interfacing	4
ECE Elective ⁴	3
Science ² or Technical ³ Elective	3
	<u>16</u>

Sixth Semester

ECE 302 Probabilistic Methods in Electrical Engineering	3
ECE 340 Simulation, Modeling, and Identification	3
ECE 382 Feedback System Analysis	3
ECE Elective ⁴	3
TCM 360 Communications in Engineering Practice	2
Humanities or Social Science Elective ¹	3
	<u>17</u>

Senior Year

Seventh Semester

ECE 400 Senior Seminar	1
ECE 440 Introduction to Communication Systems Analysis	4
ECE Electives ⁴	6
Humanities or Social Science Elective ¹	3
	<u>14</u>

Eighth Semester

ECE 401 Ethics	1
ECE 492 Senior Design	3
ECE Elective ⁴	3
Unrestricted Elective ⁵	3
Humanities or Social Science Elective ¹	3
	<u>13</u>

After completing a rigorous, broad education in electrical and computer engineering during the first five semesters, juniors and seniors may select advanced electrical and computer engineering courses and

¹ From Approved Humanities or Social Science Elective List

² From Approved Science Elective List

³ From Approved Technical Elective List

⁴ From Approved Electrical Engineering Elective List

⁵ From Lists 1-4

technical elective courses from an approved list. Careful selection of these elective courses allows a student to concentrate in a specialized area of electrical engineering. A listing of acceptable electrical engineering and technical elective courses is given below. The actual course selection will depend on the schedule, as not every course is available every semester. Existing upper-level electrical engineering courses are offered in the areas of signal processing, imaging, robotics, control systems, VLSI, electronic circuits and manufacturing, parallel processing, network and data communication, software engineering, and embedded systems design. The Department of Electrical and Computer Engineering groups these and other allowable courses into several areas of specialization. An electrical and computer engineering student should file a plan of study with an academic advisor in either the fifth or sixth semester to decide how to select these electives.

The Department of Electrical and Computer Engineering has expanded its upper-level elective courses in the biomedical engineering field. Thus students may both obtain a professional B.S.E.E. degree and prepare themselves for medical or dental school, with only a slight increase in the number of credit hours required for the basic B.S.E.E. degree. These courses are presently taught with the ECE 495 variable-topics designation and are announced in the printed class schedule each semester. Descriptions of experimental courses are not given in the bulletin, but the descriptions are available from the registrar each semester.

ECE Elective Courses

ECE 305 Semiconductor Devices
ECE 321 Electromechanical Motion Devices
ECE 359 Data Structures
ECE 365 Introduction to the Design of Digital Computers
ECE 369 Discrete Mathematics for Computer Engineers
ECE 410 Introduction of Digital Signal Processing
ECE 411 Advanced Digital Signal Processing
ECE 424 Electromechanical Systems and Applied Mechatronics
ECE 427 Power Electronics
ECE 446 Digital Computational Techniques for Electronic Circuits
ECE 449 Design of Analog and Digital Filters
ECE 455 Integrated Circuit Engineering
ECE 456 Advanced Integrated Circuit Engineering
ECE 468 Introduction to Compilers and Translation
ECE 469 Operating Systems Engineering
ECE 471 Embedded Microcontrollers
ECE 483 Digital Control System Analysis and Design
ECE 489 Introduction to Robotics
ECE 491 Engineering Design Projects
ECE 495 Selected Topics in Electrical Engineering*
ECE 496 Electrical Engineering Design Projects
Any 500-level EE course

*Course ECE 495 Selected Topics in Electrical Engineering is used to offer new courses usually every semester. Below is a list of titles offered since 1999:

Multimedia Applications
Software Engineering and Embedded Microsystems
Impact of Computer Architecture on Performance
Electrical Fundamentals of Electric Vehicles
Biomedical Instrumentation
Electromechanical Systems and Applied Mechatronics
Digital Signal Processor System Design
Digital Communications
Parallel Processor Theory
Introduction to Computer Communication Networks
Advanced Multimedia and Mobile Communications

Science Elective Courses

BIOL K101 Concepts of Biology I
BIOL K103 Concepts of Biology II
BIOL K324 Cell Biology
CHEM C106 Principles of Chemistry II
CHEM C310 Analytical Chemistry
CHEM C341 Organic Chemistry I
CHEM C360 Elementary Physical Chemistry
CHEM C361 Physical Chemistry of Bulk Matter
CHEM C362 Physical Chemistry of Molecules
PHYS 310 Intermediate Mechanics
PHYS 342 Modern Physics
PHYS 400 Physical Optics
PHYS 442 Quantum Mechanics
PHYS 520 Mathematical Physics
PHYS 530 Electricity and Magnetism
PHYS 545 Solid State Physics
PHYS 550 Introduction to Quantum Mechanics

Technical Elective Courses

Any non-required ECE or CmpE elective course.

CSCI 437 Introduction to Computer Graphics
MATH 351 Elementary Linear Algebra or
MATH 511 Linear Algebra with Applications
MATH 510 Vector Calculus
MATH 520 Boundary Value Problems of Differential Equations
MATH 523 Introduction to Partial Differential Equations
MATH 525 Introduction to Complex Analysis
MATH 526 Principles of Mathematical Modeling
MATH 527 Advanced Mathematics for Engineering and Physics I
MATH 528 Advanced Mathematics for Engineering and Physics II
MATH 530 Functions of a Complex Variable I
MATH 531 Functions of a Complex Variable II
MATH 544 Real Analysis and Measure Theory
ME 200 Thermodynamics I
ME 270 Basic Mechanics I
ME 272 Mechanics of Materials
ME 274 Basic Mechanics II
ME 301 Thermodynamics II
MSE 345 Introduction to Engineering Materials

Bachelor of Science in Computer Engineering

The objective of the Bachelor of Science in Computer Engineering (B.S.Cmp.E.) degree curriculum is an in-depth education in the analytical skills, hardware, and software aspects of modern computer systems. The program builds on a strong foundation in engineering design, including traditional analog and digital circuit design. The three main areas of emphasis within the computer-engineering program are embedded systems, telecommunication and networking, software engineering, and distributed computing. Extensive laboratory experiences support the theoretical aspects of the course work. Students gain valuable digital hardware design and software design experiences throughout the curriculum. The junior and senior year strengthen the student's expertise with courses in data structure, embedded systems, computer architecture, parallel, and advanced digital systems.

The minimum number of credit hours for graduation is 127, distributed as follows for each discipline:

1. Mathematics and Physical Sciences	
a. Calculus: MATH 163, 164, 261,	18
and 262	
b. Chemistry: CHEM C105	3
c. Physics: PHYS 152 and 251	9
2. Communications and Ethics	
a. Speech: COMM R110	3
b. Writing: ENG W131	3
c. Communication in Engineering Practice: TCM 360	2
d. Engineering Ethics and Professionalism: ECE 400 and 401	2
3. Humanities and Social Sciences	
a. Electives	15
4. Freshman Engineering Courses	
a. Introduction to the Engineering Profession: ENGR 195	1
b. Introduction to Engineering: ENGR 196	3
c. Programming Concepts: ENGR 197	3
5. Engineering Science	
a. Circuits: ECE 201, 202, and 207	7
b. Systems and Fields: ECE 301, 302	6
6. Engineering Design	
a. Electronics: ECE 208 and 255	4
b. Digital Systems: ECE 266, 267, 362, and 365	11
c. Capstone Design: ECE 492	3
7. Computer Science	
a. Computing II: ECE 264 and CSCI 490	4
b. Advanced Programming: CSCI 265	3
c. Discrete Computational Structures: ECE 369	3
d. Data Structures: ECE 359	3
8. CmpE Electives	15
9. Science/Technology Electives	3
10. Unrestricted Electives	3

Semester by semester, the 127 total credit hours should be distributed like this:

Freshman Year**First Semester**

ENGR 196 Introduction to Engineering	3
ENGR 195 Introduction to the Engineering Profession	1
CHEM C105 Chemical Science I	3
MATH 163 Integrated Calculus and Analytic Geometry	5
COMM R110 Fundamentals of Speech Communication	3
	15

Second Semester

ENGR 197 Programming	3
PHYS 152 Mechanics	4
ENG W131 Elementary Composition I	3
MATH 164 Integrated Calculus and Analytic Geometry II	5
Humanities or Social Science Elective ¹	3
	18

Sophomore Year**Third Semester**

ECE 201 Linear Circuit Analysis I	3
ECE 207 Electronic Measurement Techniques	1
ECE 264 Advanced C Programming	2
PHYS 251 Electricity and Optics	5
MATH 261 Multivariate Calculus	4
CSCI 490 Computing II	2
	17

Fourth Semester

ECE 202 Circuit Analysis II	3
ECE 255 Introduction to Electronics Analysis and Design	3
ECE 266 Digital Logic Design	3
ECE 267 Digital Logic Design Laboratory	1
ECE 208 Electronic Design and Devices Lab	1
MATH 262 Linear Algebra Differential Equations	4
CSCI 265 Advanced Programming	3
	18

Junior Year**Fifth Semester**

ECE 301 Signals and Systems	3
ECE 362 Microprocessor Systems and Interfacing	4
ECE 369 Discrete Math for Computer Engineers	3
ECE 359 Data Structures	3
Science ² or Technical ³ Elective	3
	16

Sixth Semester

ECE 302 Probabilistic Methods in Electrical Engineering	3
ECE 365 Introduction to the Design of Digital Computers	3
CmpE Elective ⁴	6
TCM 360 Communications in Engineering Practice	2
Humanities or Social Science Elective ¹	3
	17

Senior Year**Seventh Semester**

ECE 400 Senior Seminar	1
CmpE Elective ⁴	6
Humanities or Social Science Elective ¹	6
	13

Eighth Semester

ECE 401 Ethics	1
ECE 492 Senior Design	3
CmpE Elective ⁴	3
Unrestricted Elective ⁵	3
Humanities or Social Science Elective ¹	3
	13

¹ From Approved Humanities or Social Science Elective List

² From Approved Science Elective List

³ From Approved Technical Elective List

⁴ From Approved Computer Engineering Elective List

⁵ From Lists 1-4

CmpE Elective Courses

ECE 305 Semiconductor Devices
 ECE 311 Electric and Magnetic Fields
 ECE 382 Feedback Systems Analysis and Design
 ECE 410 Introduction to Digital Signal Processing
 ECE 440 Introduction to Communication Systems Analysis
 ECE 471 Embedded Microcontrollers
 ECE 491 Engineering Design Projects
 ECE 495 Selected Topics in Electrical Engineering*
 ECE 496 Electrical Engineering Design Projects
 ECE 536 Computational Intelligence
 ECE 565 Computer Architecture
 ECE 559 MOS VLSI Design
 CSCI 355 Introduction to Programming Languages
 CSCI 403 Introduction to Operating Systems
 CSCI 414 Numerical Methods
 CSCI 443 Database Systems
 CSCI 463 Analysis of Algorithms
 CSCI 475 Scientific Computing I
 CSCI 476 Scientific Computing II
 Any 500-level EE Course

Science Elective Courses

BIOL K101 Concepts of Biology I
 BIOL K103 Concepts of Biology II
 BIOL K324 Cell Biology
 CHEM C106 Principles of Chemistry II
 CHEM C310 Analytical Chemistry
 CHEM C341 Organic Chemistry I
 CHEM C360 Elementary Physical Chemistry
 CHEM C361 Physical Chemistry of Bulk Matter
 CHEM C362 Physical Chemistry of Molecules
 PHYS 310 Intermediate Mechanics
 PHYS 342 Modern Physics
 PHYS 400 Physical Optics
 PHYS 442 Quantum Mechanics
 PHYS 520 Mathematical Physics
 PHYS 530 Electricity and Magnetism
 PHYS 545 Solid State Physics
 PHYS 550 Introduction to Quantum Mechanics

Technical Elective Courses

Any non-required ECE or CmpE elective course
 CSCI 437 Introduction to Computer Graphics
 MATH 351 Elementary Linear Algebra or
 MATH 511 Linear Algebra with Applications
 MATH 510 Vector Calculus
 MATH 520 Boundary Value Problems of Differential Equations
 MATH 523 Introduction to Partial Differential Equations
 MATH 525 Introduction to Complex Analysis
 MATH 526 Principles of Mathematical Modeling
 MATH 527 Advanced Mathematics for Engineering and Physics I
 MATH 528 Advanced Mathematics for Engineering and Physics II
 MATH 530 Functions of a Complex Variable I
 MATH 531 Functions of a Complex Variable II
 MATH 544 Real Analysis and Measure Theory
 ME 200 Thermodynamics I
 ME 270 Basic Mechanics I
 ME 272 Mechanics of Materials
 ME 274 Basic Mechanics II
 ME 301 Thermodynamics II
 MSE 345 Introduction to Engineering Materials

* Course ECE 495 Selected Topics in Electrical Engineering is used to offer new courses usually every semester. Below is a list of titles offered since 1999:

Multimedia Applications
 Software Engineering and Embedded Microsystems
 Impact of Computer Architecture on Performance
 Electrical Fundamentals of Electric Vehicles
 Biomedical Instrumentation
 Electromechanical Systems and Applied Mechatronics
 Digital Signal Processor System Design
 Digital Communications
 Parallel Processor Theory
 Introduction to Computer Communication Networks
 Advanced Multimedia and Mobile Communications

Bachelor of Science in Engineering—Interdisciplinary Engineering

The Electrical and Computer Engineering Department offers a Bachelor of Science in Engineering (B.S.E.) degree program for students wishing to supplement a strong core curriculum in electrical and computer engineering science and design with courses from mathematics, science, business, biomedicine, or another engineering discipline. While not ABET accredited, the B.S.E. degree program offers the student greater flexibility to create a plan of study to accommodate broad interdisciplinary interests and objectives. The plan coincides with the traditional B.S.E.E. curriculum through the sophomore year and then diverges to include ECE electives and courses from interdisciplinary areas in the remainder of the curriculum.

The minimum number of credit hours for graduation is 126, distributed as follows for each discipline:

- | | |
|---|------------|
| 1. Mathematics and Physical Sciences | |
| a. Calculus: MATH 163, 164, 261, and 262 | 18 |
| b. Chemistry: CHEM C105 and C106 | 6 |
| c. Physics: PHYS 152 and 251 | 9 |
| 2. Communications and Ethics | |
| a. Speech: COMM R110 | 3 |
| b. Writing: ENG W131 | 3 |
| c. Communication in Engineering Practice: TCM 360 | 2 |
| d. Engineering Ethics and Professionalism: ECE 400 and 401 | 2 |
| 3. Humanities and Social Sciences | |
| a. Electives | 15 |
| 4. Freshman Engineering Courses | |
| a. Introduction to the Engineering Profession: ENGR 195 | 1 |
| b. Introduction to Engineering: ENGR 196 | 3 |
| c. Programming Concepts: ENGR 197 | 3 |
| 5. Electrical Engineering Courses | |
| a. ECE Core: ECE 201, 202, 207, 208, 255, 266, 267, 301, and 362 | 22 |
| b. ECE Electives (any ECE 300-, 400-, or 500-level course) | 12 |
| 6. Technical Elective Course | 3 |
| 7. Interdisciplinary Area | |
| a. Core Requirements | 12 |
| b. Core Electives | 12 |
| | 126 |

Freshman Year**First Semester**

ENGR 195 Introduction to the Engineering Profession.....1
ENGR 196 Introduction to Engineering3
CHEM C105 Principles of Chemistry I3
COMM R110 Fundamentals of Speech Communication3
MATH 163 Integrated Calculus and Analytic Geometry I5
15

Second Semester

ENGR 197 Introduction to Engineering.....3
CHEM C106 Principles of Chemistry II.....3
ENG W131 Elementary Composition I.....3
MATH 164 Integrated Calculus and Analytic Geometry II.....5
PHYS 152 Mechanics4
18

The remainder of the Interdisciplinary plan of study is individualized. You should speak to your academic advisor regarding your course selection.

Graduate Programs in Electrical and Computer Engineering

You can earn the Master of Science in Electrical and Computer Engineering (M.S.E.C.E.), Master of Science in Engineering (M.S.E.), and the Master of Science in Biomedical Engineering (M.S.Bm.E.) through the Department of Electrical and Computer Engineering at the Purdue School of Engineering and Technology at IUPUI. The M.S.E.C.E. degree is organized into several areas of study, including computer engineering, controls and automation, communication, and signal processing, and biomedical engineering while the M.S.E. degree is interdisciplinary in nature and is primarily for non-electrical engineering undergraduates. Qualified students may be authorized to pursue the Ph.D. degree in electrical and computer engineering or mechanical engineering at IUPUI. Programs leading to the Ph.D. in electrical engineering and in mechanical engineering are administered with the respective approval of the School of Electrical Engineering and the School of Mechanical Engineering at Purdue University, West Lafayette.

Department of Mechanical Engineering

Professors Akay (*Chair*), J. Chen, Ecer, Paydar, Pidaparti, Turner

Associate Professors Afolabi, Hsu, Katona

Assistant Professors El-Mounayri, Lamm, Nalim, Yokota

Adjunct Faculty Periaux, Oshida, Roberts

The Department of Mechanical Engineering offers programs at the bachelor's, master's, and doctoral levels. At the bachelor's level, programs described here lead to the Bachelor of Science in Mechanical Engineering (B.S.M.E.) and to the Bachelor of Science in Engineering (B.S.E.), an interdisciplinary degree. Students enrolled in the department study under full-time faculty actively engaged in research in a variety of areas: biomechanics, combustion, composites, computational fluid dynamics, computer-aided design, control, elasticity, experimental mechanics, fluid mechanics, finite element methods, fracture, heat transfer, manufacturing, robotics, solid and structural mechanics, stress analysis, turbomachinery, and vibration. Part-time employment is available to students in the research laboratories of the department. Such experience enhances course work and is particularly valuable to those who later undertake graduate study.

For more information, contact the Department of Mechanical Engineering at (317) 274-9717.

Bachelor of Science in Mechanical Engineering

Accredited by the Engineering Accreditation Commission of the Accreditation Board for Engineering and Technology, Inc. (ABET), 111

Market Place, Suite 1050, Baltimore, MD 21202,
(410) 347-7700.

Mechanical engineering has its foundation in the basic sciences, including mathematics, physics, and chemistry, and requires an understanding of such areas as solid and fluid mechanics, materials, thermodynamics, heat and mass transfer, manufacturing processes, instrumentation, and control. Mechanical engineers are engaged in a variety of activities including design, manufacturing, research, development, testing, construction, operations, sales, management, consulting, and teaching.

The mechanical engineering curriculum provides a broad base on which to build an engineering career. Traditional subjects in mechanical engineering are complemented by extensive computer experience in such areas as computer-aided design and numerical problem solving. The program's flexibility allows students to specialize in their area of interest through the choosing of electives.

The number of credit hours required for graduation is 130, distributed as follows for each discipline:

1. Mathematics and Physical Sciences	
a. Calculus: MATH 163, 164, 261, and 262	18
b. Chemistry: CHEM C105	3
c. Physics: PHYS 152 and 251	9
d. Science Elective	3
2. Communications and Ethics	
a. Speech: COMM R110	3
b. Writing: ENG W131	3
c. Communication in Engineering Practice: TCM 360	2
d. Engineering Ethics and Professionalism: ME 401	1
3. Humanities and Social Sciences	
a. Economics: ECON E201	3
b. Electives	15
4. Freshman Engineering Courses	
a. Introduction to the Engineering Profession: ENGR 195	1
b. Introduction to Engineering: ENGR 196	3
c. Introduction to Programming Concepts: ENGR 197	3
5. Mechanics and Materials	
a. Mechanics: ME 270 and ME 274	6
b. Materials: ME 272 and MSE 345	7
6. Design	
a. Mechanical Design: ME 262 and 372	7
b. Engineering Design: ME 462	4
7. Thermal Sciences	
a. Thermodynamics: ME 200	3
b. Fluid Mechanics: ME 310	4
c. Heat and Mass Transfer: ME 314	4
8. Electrical Engineering, Instrumentation, and Control	
a. Electrical Engineering: ECE 201 and 207	4
b. Systems, Instrumentation, and Control: ME 330, 340, and 482	9
9. Technical Electives	
a. Mechanical Engineering Electives	12
b. Elective	3
	130

Semester by semester, the 130 total credit hours should be distributed like this:

Freshman Year

First Semester

ENGR 195 Introduction to the Engineering Profession	1
ENGR 196 Introduction to Engineering	3
CHEM C105 Chemical Science I	3
COMM R110 Fundamentals of Speech Communication	3
MATH 163 Integrated Calculus and Analytic Geometry I	5
	15

Second Semester

ENGR 197 Introduction to Programming Concepts	3
Science Elective	3
ENG W131 Elementary Composition I	3
MATH 164 Integrated Calculus and Analytic Geometry II	5
PHYS 152 Mechanics	4
	18

Sophomore Year

Third Semester

ME 200 Thermodynamics I	3
ME 270 Basic Mechanics I	3
ECON E201 Introduction to Microeconomics	3
MATH 261 Multivariate Calculus	4
PHYS 251 Heat, Electricity, and Optics	5
	18

Fourth Semester

ME 262 Mechanical Design I	3
ME 274 Basic Mechanics II	3
ECE 201 Linear Circuit Analysis I	3
ECE 207 Electronic Measurement Techniques	1
MATH 262 Linear Algebra and Differential Equations	4
Humanities or Social Science Elective	3
	17

Junior Year

Fifth Semester

ME 272 Mechanics of Materials	4
ME 310 Fluid Mechanics	4
ME 330 Modeling and Analysis of Dynamic Systems	3
ME Elective	3
Humanities or Social Science Elective	3
	17

Sixth Semester

MSE 345 Introduction to Engineering Materials	3
ME 314 Heat and Mass Transfer	4
ME 340 Dynamic Systems and Measurements	3
ME 372 Mechanical Design II	4
Humanities or Social Science Elective	3
	17

Senior Year

Seventh Semester

ME 482 Control Systems Analysis and Design	3
ME Elective	3
TCM 360 Communication in Engineering Practice	2
Technical Elective	3
Humanities or Social Science Elective	3
	14

Eighth Semester

ME 401 Engineering Ethics and Professionalism	1
ME 462 Engineering Design	4
ME Electives	6
Humanities or Social Science Elective	3
	14

Approved Mechanical Engineering Electives

ME 301 Thermodynamics II	3
ME 402 Biomechanics of the Musculoskeletal System	3
ME 403 Thermal Science Applications	3
ME 418 Heating and Air-Conditioning Analysis and Design	3
ME 430 Power Engineering	3
ME 433 Principles of Turbomachinery	3
ME 446 CAD/CAM Theory and Applications	3
ME 450 Introduction to Computer-Aided Engineering	3
ME 451 Computational Methods in Thermal Sciences	3
ME 458 Composite Materials	3
ME 472 Advanced Mechanics of Materials	3
ME 474 Vibration Analysis	3
ME 491 Engineering Design Project	1-2
ME 497 Selected Topics in Mechanical Engineering	3
ME 500 Thermodynamics	3
ME 505 Intermediate Heat Transfer	3
ME 509 Intermediate Fluid Mechanics	3
ME 510 Gas Dynamics	2
ME 525 Combustion	3
ME 550 Advanced Stress Analysis	3
ME 551 Finite Element Analysis	3
ME 552 Advanced Applications of Finite Element Methods	3
ME 558 Composite Materials	3
ME 563 Mechanical Vibrations	3
ME 569 Mechanical Behavior of Materials	3
ME 581 Numerical Methods in Mechanical Engineering	3
ME 597 Selected Topics in Mechanical Engineering	3
Approved Technical Electives	
ME 301 Thermodynamics II	3
ME 402 Biomechanics of the Musculoskeletal System	3
ME 403 Thermal Science Applications	3
ME 418 Heating and Air-Conditioning Analysis and Design	3
ME 430 Power Engineering	3
ME 433 Principles of Turbomachinery	3
ME 446 CAD/CAM Theory and Applications	3
ME 450 Introduction to Computer-Aided Engineering	3
ME 451 Computational Methods in Thermal Sciences	3
ME 458 Composite Materials	3
ME 472 Advanced Mechanics of Materials	3
ME 474 Vibration Analysis	3
ME 491 Engineering Design Project	1-2
ME 497 Selected Topics in Mechanical Engineering	3
ME 500-Level Mechanical Engineering Courses	3
CSCI 240 Computing II	4
CSCI 300 Systems Programming	3
CSCI 414 Numerical Methods	3
ECE 208 Electronic Devices and Design Laboratory	1

ECE 255 Introduction to Electronics Analysis and Design	3
ECE 266 Digital Logic Design	3
ECE 267 Digital Logic Design Laboratory	1
ECE 302 Probabilistic Methods in Electrical Engineering	3
ECE 362 Microprocessor Systems and Interfacing	4
ECE 489 Introduction to Robotics	3
MATH 510 Vector Calculus	3
MATH 511 Linear Algebra with Applications	3
MATH 520 Boundary Value Problems of Differential Equations	3
MATH 525 Introduction to Complex Analysis	3
MATH 526 Principles of Mathematical Modeling	3
PHYS 342 Modern Physics	3
PHYS 480 Solar Energy Usage	3
PHYS 545 Solid-State Physics	3
STAT 311 Introductory Probability	3
STAT 511 Statistical Methods I	3

Graduate Programs in Mechanical Engineering

The Department of Mechanical Engineering has an outstanding and up-to-date engineering faculty with expertise and research interests in the areas of advanced manufacturing, biomechanics, composites, computational fluid dynamics, computer-aided design, computer-aided manufacturing, combustion, controls, elasticity, fluid mechanics, finite element analysis, fracture, heat transfer, robotics, solid and structural mechanics, stress analysis, and turbomachinery. The department offers graduate programs of study that lead to the degrees of Master Science (M.S.), Master of Science in Engineering (M.S.E.), and Master of Science in Mechanical Engineering (M.S.M.E.). Qualified students may be authorized to pursue the Ph.D. degree in mechanical engineering at IUPUI. The program leading to the Ph.D. in mechanical engineering is administered with the approval of the School of Mechanical Engineering at Purdue University, West Lafayette.

Bachelor of Science in Engineering—Interdisciplinary Engineering

Interdisciplinary engineering provides an opportunity for students whose interests and talents, while oriented toward engineering and science, do not coincide with the plans of study previously outlined in this section. Interdisciplinary engineering does not have a designated professional curriculum, but it is constituted to accommodate a degree objective with broad flexibility and opportunity for interdisciplinary studies.

Students cooperate with their faculty advisors to develop a personalized plan of study leading to the Bachelor of Science in Engineering (B.S.E.) degree with interdisciplinary engineering identified as the major field of study. The Department of Mechanical Engineering has prepared plans of study with such major program areas as bioengineering and

engineering management. A description of the engineering management program follows. For information about other available options, please consult faculty in the Department of Mechanical Engineering.

Bachelor of Science in Engineering—Engineering Management

The School of Engineering and Technology and the Indiana University School of Business offer a joint program in engineering management. This program prepares students to begin careers that may lead to administrative or management positions in technological, engineering, or manufacturing operations. The program also prepares students for careers in large nontechnological organizations such as financial institutions, which may require skills generally associated with both engineering and business. The engineering management program provides a solid background in both engineering and management. To complete the graduation requirements, students take courses in electrical, industrial, and mechanical engineering, as well as accounting, business law, economics, finance, marketing, and management.

Students who finish this four-year degree have several options for continuing their education. With approximately three additional semesters of study, they can also complete an undergraduate program in industrial, electrical, or mechanical engineering. With approximately six additional undergraduate courses they can enroll in a master's degree program in industrial, electrical, or mechanical engineering. They may also apply for direct admission to law school. Students interested in any of these options for continued education should consult their advisors when determining their plans of study.

The number of credit hours required for graduation is 133, distributed as follows for each discipline:

1. Mathematics and Physical Sciences	
a. Calculus: MATH 163, 164, 261, and 262	18
b. Chemistry: CHEM C105	3
c. Physics: PHYS 152 and 251	9
2. Communications and Ethics	
a. Speech: COMM R110	3
b. Writing: ENG W131	3
c. Communication in Engineering Practice: TCM 360	2
d. Engineering Ethics and Professionalism: ME 401	1
3. Humanities and Social Sciences	
a. Sociology: SOC R100	3
b. Psychology: PSY B104	3
c. Electives	6
4. Freshman Engineering Courses	
a. Introduction to Engineering Concepts: ENGR 195	1
b. Introduction to Engineering: ENGR 196	3
c. Introduction to Programming Concepts: ENGR 197	3

5. Engineering Courses	
a. Electrical Engineering: ECE 201, 207, and 266	7
b. General Engineering	12
c. Mechanical Engineering: ME 200, 270, 272, 274, and 330	16
d. Materials: MSE 345	3
6. Economics: ECON E201, E202, and E270	9
7. Business	
a. Accounting: BUS A100, A201, and A202	7
b. Business Law: BUS L203	3
c. Finance: BUS F301	3
d. Management: BUS Z302	3
e. Marketing: BUS M301	3
f. Operations and System Management: BUS P301 and BUS P490	6
g. Computer: BUS K201	3
	133

Freshman Year

First Semester

ENGR 195 Introduction to the Engineering Profession.....	1
ENGR 196 Introduction to Engineering	3
CHEM 105 Chemical Science I	3
COMM R110 Fundamentals of Speech Communication	3
MATH 163 Integrated Calculus and Analytic Geometry I	5
	15

Second Semester

ENGR 197 Introduction to Programming Concepts	3
ENG W131 Elementary Composition I	3
MATH 164 Integrated Calculus and Analytic Geometry II	5
PHYS 152 Mechanics	4
PSY B104 Psychology as a Social Science	3
	18

Sophomore Year

Third Semester

ECE 201 Linear Circuit Analysis I	3
ECON E201 Introduction to Microeconomics	3
MATH 261 Multivariate Calculus	4
PHYS 251 Heat, Electricity, and Optics	5
BUS A100 Basic Accounting Skills	1
	16

Fourth Semester

ME 270 Basic Mechanics I	3
ECE 207 Electronic Measurement Techniques	1
BUS A201 Introduction to Financial Accounting	3
BUS L203 Commercial Law I	3
ECON E202 Introduction to Macroeconomics	3
MATH 262 Linear Algebra and Differential Equations	4
	17

Junior Year

Fifth Semester

ME 200 Thermodynamics I	3
ME 274 Basic Mechanics II	3
ECE 266 Digital Logic Design	3
BUS A202 Introduction to Managerial Accounting	3
ECON E270 Introduction to Statistical Theory in Economics	3
BUS K201 The Computer in Business	3
	18

Sixth Semester

ME 272 Mechanics of Materials	4
ME 330 Modeling and Analysis of Dynamic Systems.....	3
TCM 360 Communication in Engineering Practice.....	2
SOC R100 Introduction to Sociology	3
Engineering Elective.....	3
	15

Senior Year**Seventh Semester**

BUS F301 Financial Management	3
BUS M301 Introduction to Marketing.....	3
BUS P301 Operations Management	3
Engineering Electives	6
Humanities Elective.....	3
	18

Eighth Semester

ME 401 Engineering Ethics and Professionalism	1
MSE 345 Engineering Materials.....	3
BUS Z302 Managing and Behavior in Organizations.....	3
BUS P490 Independent Study in Operations Management	3
Humanities Elective.....	3
Engineering Elective.....	3
	16

Bachelor of Science in Engineering—Biomedical Engineering

Biomedical engineering is a discipline that advances knowledge in engineering, biology, and medicine, and improves human health through cross-disciplinary activities that integrate the engineering sciences with the biomedical sciences and clinical practice. Biomedical Engineering is a vibrant and rapidly expanding field both in content and opportunities. As our technological infrastructure expands and our fundamental knowledge in the life sciences is now at the basic molecular level, biomedical engineers are poised to continue to make major advances.

Within the context of the Interdisciplinary Degree in Engineering (IDE), several plans of study have been developed to provide the student with a breadth of courses in one of the traditional engineering disciplines (electrical, computer, or mechanical) and a breadth of study in the sciences. This will allow a student to have a highly attractive degree program that combines engineering methods and problem-solving skills with a significant knowledge base in chemistry, physics, and biology. Thus, students may focus their engineering knowledge to problems in biology or chemistry.

This broadly based educational program is especially suited for pre-professional schools such as medicine, dentistry, or law as well as graduate programs in the medical sciences and biomedical engineering. Companies whose product lines cross the scientific and technical fields, such as pharmaceutical companies and medical device companies, may also find the degree attractive. Because of the high entrance requirements for many of these options, students should work closely with an academic advisor in developing their plan of study as well as monitoring their progress through the plan of study. Only students with strong academic backgrounds

should consider the Biomedical Engineering option in pursuing the B.S.E. degree.

Graduate Programs in Biomedical Engineering

Biomedical engineering is an interdisciplinary program that is a joint effort of the Purdue School of Engineering and Technology, the Purdue School of Science, and the Indiana University schools of Medicine and Dentistry on the Indiana University-Purdue University at Indianapolis (IUPUI). In addition to these participating academic units, the program operates in close collaboration with several centers and facilities on campus, and with the Department of Biomedical Engineering at Purdue University, West Lafayette.

Students interested in the M.S.Bm.E. degree should apply directly to the Graduate Programs Office of the Purdue School of Engineering and Technology in Indianapolis. Students with a master's degree or who are solely interested in the Ph.D. degree will apply to the Department of Biomedical Engineering at West Lafayette, even though they may be resident and study on the Indianapolis campus.

Engineering Course Descriptions

Key to Course Descriptions

The courses listed in this section will, for the most part, be offered during the 2002-04 academic years. Additional information about course schedules may be obtained from the specific departments in the school. Courses are grouped under their program subject abbreviation. Course descriptions may contain the following information, in this order: course number, course title, number of credit hours (in parentheses), number of hours of lecture per week, number of laboratory hours per week, number of hours per week for recitation (group discussion and problem solving), and prerequisites (P) and/or corequisites (C), followed by the course description. For example, under Electrical and Computer Engineering (ECE), a course description reads:

ECE 202 Linear Circuit Analysis II (3 cr.) Class 3. P: ECE 201. P or C: MATH 262. Continuation of ECE 201. Use of computer-aided design programs. Complex frequency plane, resonance, scaling, and coupled circuits. Two-port network parameters. Laplace transform methods. Use of trees, general loop and nodal equations, matrix formulations.

This listing indicates that the course number is ECE 202 with the title "Linear Circuit Analysis II" (a continuation of ECE 201). It's worth 3 credit hours. The class meets 3 hours a week for lectures. A required prerequisite course (i.e., a course that must be completed before taking ECE 202) is ECE 201. Another prerequisite or corequisite (i.e., a course that must be completed at the same time as ECE 202, if not sooner) is MATH 262. A brief course description then follows.

Please refer to the bulletin of the Purdue University Graduate School for descriptions of graduate courses not appearing in the following lists.

Electrical and Computer Engineering (ECE)

ECE 201 Linear Circuit Analysis I (3 cr.) Class 3. P or C: MATH 261 and PHYS 251. Recommended C: ECE 207. Volt-ampere characteristics for circuit elements; independent and dependent sources; Kirchhoff's laws and circuit equations. Source transformations; Thevenin's and Norton's theorems; superposition. Transient response of resistor capacitor (RC), resistor inductor (RL), and resistor inductor capacitor (RLC) circuits; sinusoidal steady-state and impedance. Instantaneous and average power.

ECE 202 Linear Circuit Analysis II (3 cr.) Class 3. P: ECE 201. P or C: MATH 262. Continuation of ECE 201. Use of computer-aided design programs. Complex frequency plane, resonance, scaling, and coupled circuits. Two-port network parameters. Laplace transform methods. Use of trees, general loop and nodal equations, matrix formulations.

ECE 207 Electronic Measurement Techniques (1 cr.) Lab 3. P or C: ECE 201. Experimental exercises in the use of laboratory instruments. Voltage, current, impedance, frequency, and waveform measurements. Frequency and transient response. Use of operational amplifiers in instrumentation systems.

ECE 208 Electronic Devices and Design Laboratory (1 cr.) Lab 3. P: ECE 207. C: ECE 255. Laboratory experiments in design and measurement with analog devices. Applications include single-stage and multistage bipolar and FET amplifiers, operational amplifier applications, differential amplifiers, and active filters.

ECE 255 Introduction to Electronics Analysis and Design (3 cr.) Class 3. P: ECE 201. Recommended C: ECE 208. Diode, bipolar transistor, and field effect transistor (FET) circuit models for the design and analysis of electronic circuits. Single-stage and multistage analysis and design. Computer-aided design calculations, amplifier operating point design and frequency response of single and multistage amplifiers. High frequency and low frequency designs are emphasized.

ECE 264 Advanced C Programming (2 cr.) Class 2. P: A basic knowledge of the UNIX operating system and an introductory C programming course. C programming knowledge should include basic syntax, control structures, and file I/O, as well as experience in declaring and using functions. Continuation of a first programming course. Topics include files, structures, pointers, and the proper use of dynamic data structures.

ECE 266 Digital Logic Design (3 cr.) Class 3. P or C: ECE 201. Introduction to logic design, with emphasis on practical design techniques and circuit implementation. Topics include Boolean algebra; theory of logic functions; mapping techniques and function minimization; logic equivalent circuits and symbol transformations; transistor-transistor-logic (TTL)/metal oxide semi-conductor (MOS) logic into gate implementations; electrical characteristics; propagation

delays; signed number notations and arithmetic; binary and decimal arithmetic logic circuits; theory of sequential circuits; timing diagrams; analysis and synthesis of SR-, D-, T-, and JK-based sequential circuits; clock generation circuits; algorithmic state machine method of designing sequential circuits.

ECE 267 Digital Logic Design Laboratory (1 cr.) Lab 3. P: ECE 207. C: ECE 266. A series of logic circuit experiments using TTL integrated circuits. Designed to reinforce material presented in ECE 266 lecture.

ECE 301 Signals and Systems (3 cr.) Class 3. P: ECE 202 and MATH 262. Signal and system representation. Fourier series and transforms, sampling and discrete Fourier transforms. Discrete-time systems, difference equation, Z-transforms. State equations, stability, characteristic values and vectors. Continuous-time systems, time and frequency domain analysis. Continuous systems with sampled inputs.

ECE 302 Probabilistic Methods in Electrical Engineering (3 cr.) Class 3. P or C: ECE 301. An introductory treatment of probability theory, including distribution and density functions, moments, and random variables. Applications of normal and exponential distributions. Estimation of means and variances. Hypothesis testing and linear regression. Introduction to random processes, correlation functions, spectral density functions, and response of linear systems to random inputs.

ECE 305 Semiconductor Devices (3 cr.) Class 3. P: ECE 255, MATH 262, and PHYS 251. Materials- and phenomena-based examination of devices, emphasizing the how and why of solid-state device operation.

ECE 311 Electric and Magnetic Fields (3 cr.) Class 3. P: MATH 262 and PHYS 251. Continued study of vector calculus, electrostatics, and magnetostatics. Maxwell's equations, introduction to electromagnetic waves, transmission lines, and radiation from antennas. Students may not receive credit for both ECE 311 and PHYS 330.

ECE 321 Principles of Electromechanical Energy Conversion (3 cr.) Class 3. P: ECE 202. C: ECE 311. The general theory of electromechanical motion devices relating to electric variables and electromagnetic forces. Basic concepts and operational behavior of DC, induction, brushless DC, and stepper motors used in control applications.

ECE 340 Simulation, Modeling, and Identification (3 cr.) Class 2, Lab 3. P: ECE 207 and ECE 301. Investigation and evaluation of design problems through simulation of systems described by ordinary differential and difference equations. Development of simulation models from physical parameters and from experimental data. Topics include continuous, discrete, and hybrid models of electrical, mechanical, and biological systems. Laboratory experiences demonstrate concepts studied in text and lecture.

ECE 359 Data Structures (3 cr.) Class 3. P: ENGR 197. An introductory course in computer engineering, with emphasis on data structure and program design using the C language. The classical concepts of structured programming such as stack, queue, linked list, tree, recursion, sorting, and searching.

Applications of structured programming in engineering.

ECE 362 Microprocessor Systems and Interfacing (4 cr.) Class 3, Lab 3. P: ENGR 197, ECE 266, and ECE 267. An introduction to basic computer organizations, microprocessor instruction sets, assembly language programming, the design of various types of digital as well as analog interfaces, and microprocessor system design considerations. Laboratory provides practical hands-on experience with microprocessor software application and interfacing techniques. Design and implementation of a simple three-bus computer; detailed study of a particular microcomputer architecture and instruction set (Motorola 6809); assembly language programming techniques; system control signals and I/O port design and handshaking protocols; interrupt control systems; LSI parallel and serial interfaces; analog data and control interfaces.

ECE 365 Introduction to the Design of Digital Computers (3 cr.) Class 3. P: ECE 362. The hardware organization of computer systems: instruction set selection, arithmetic/logic unit design, hardwired and microprogrammed control schemes, memory organization, I/O interface design. Computer simulation of digital systems.

ECE 369 Discrete Mathematics for Computer Engineering (3 cr.) Class 3. P: ECE 266. Introduction to discrete mathematical structure and finite-state machines. Topics include foundation of discrete mathematics, groups and semi-groups, group codes in computer systems, basic model of finite-state machines, state and machine identification experiments, regular expressions, and complexity.

ECE 382 Feedback System Analysis and Design (3 cr.) Class 3. P: ECE 301 or ME 330 or equivalent. Classical concepts of feedback system analysis and associated compensation techniques. In particular, the root locus, Bode diagram, and Nyquist criterion are used as determinants of stability.

ECE 400 Electrical Engineering Undergraduate Seminar (1 cr.) Class 2. P: Senior standing in electrical engineering. A lecture-demonstration series on electrical and electronic devices, procedures, systems, and career topics.

ECE 401 Engineering Ethics and Professionalism (1 cr.) Class 1. P: Senior standing. Some ethical, social, political, legal, and ecological issues that practicing engineers may encounter. (ECE 401 and ME 401 are cross-listed courses; students may not get credit for both ECE 401 and ME 401.)

ECE 410 Introduction to Digital Signal Processing (3 cr.) Class 2, Lab 3. P: ECE 301. P or C: ECE 362. An introductory treatment of digital signal processing algorithms and implementation using high-speed digital signal processors. Sampling, architecture, addressing modes and instruction set of digital signal processors, discrete Fourier transform, fast Fourier transform, and digital filtering.

ECE 411 Advanced Techniques in Digital Signal Processing (3 cr.) Class 2, Recitation 2. P: ECE 302. P or C: ECE 410. Theory and algorithms for processing stochastic signals. Review of discrete-time transforms and stochastic process. Introduction to

optimum and adaptive filtering, and to classical and modern spectral analysis.

ECE 417 Multimedia Applications (3 cr.) Class 3. P: ECE 301 and ECE 365. An introductory treatment of multimedia algorithms and implementation using high-speed multimedia processors. Detailed discussion of architecture, addressing modes and instruction set of multimedia processors, entropy coding, transform coding, speech compression, image compression, and video compression.

ECE 427 Semiconductor Power Electronics (3 cr.) Class 2, Lab 3. P: ECE 255 and ECE 301. Introduction to power semiconductor devices, characteristics, and ratings. Emphasis on analysis and design of circuits with power semiconductors and associated devices. Power rectification, inversion, AC-to-AC power control, firing circuits, and microcomputer control of power circuits.

ECE 440 Transmission of Information (4 cr.) Class 3, Lab 3. P: ECE 301 and 302. Analysis and design of analog and digital communication systems. Emphasis on engineering applications of theory to communication system design. The laboratory introduces the use of advanced engineering workstations in the design and testing of communication systems.

ECE 446 Digital Computational Techniques for Electronic Circuits (3 cr.) Class 3. P: ENGR 197, ECE 301. Algorithmic and computational aspects of electronic circuit analysis, both linear and nonlinear. Numerical methods such as Newton-Raphson and various integration formulas. Sparse matrices and implicit integration techniques. Worst-case and tolerance analysis.

ECE 455 Integrated Circuit Engineering (3 cr.) Class 3. P: ECE 202 and ECE 255. Recommended P or C: ECE 305. Analysis, design, and fabrication of silicon, thin-film, and thick-film integrated circuits. Consideration of circuit design, layout, and fabrication techniques for integrated circuits. Circuit simulation studies aided by SPICE II software system. Integrated operational amplifiers and logic gates (TTL, I²L, MOS, and CMOS).

ECE 456 Advanced Integrated Circuit Engineering (3 cr.) Class 3. P: ECE 455. A continuation of ECE 455, with similar topics treated in greater depth. Additional material on epitaxy, sputtering, diffusion schedules, DMOS, VMOS, SOS, FET op-amps, Gummel-Poon models, threshold logic, flip-flops, and semiconductor memories is included. SPICE II simulations using macro models.

ECE 468 Introduction to Compilers and Translation Engineering (3 cr.) Class 3. P: ECE 359, ECE 362, and ECE 365. Design and construction of compilers and other translators. Compilation goals, organization of a translator, grammars and languages, symbol tables, lexical analysis, syntax analysis (parsing), error handling, intermediate and final code generation, assemblers, interpreters, and an introduction to optimization/parallelization. Emphasis on engineering, from scratch, a compiler or interpreter for a small programming language, typically a C or Pascal subset. Projects involve implementation (and documentation) of such a system using C on UNIX.

ECE 469 Operating Systems Engineering (3 cr.) Class 3. P: ECE 359, ECE 365. Design and construction of modern operating systems. Basic process concepts in multiprogrammed computer systems, including concurrency, scheduling, resource sharing, synchronization, deadlock, mutual exclusion, and protection. The engineering of operating systems involving detailed examination and modification of an existing operating system, UNIX. Presentation of analytic modeling and performance evaluation techniques. Case studies of existing operating systems. A substantial part of the course involves projects, centered on modification of UNIX, that support concepts of OS design and construction, including primary and secondary storage management, file systems, I/O subsystems, CPU scheduling, and disk scheduling.

ECE 471 Embedded Microcontroller, Microprocessor, and DSP-Based Systems (3 cr.) Class 3. P: ECE 362, ENGR 197. A structured approach to the development and integration of embedded microcontroller/microprocessor/DSP-based systems. The course provides students with design experience of embedded systems. The course covers the microprocessor selection, the configuration of peripheral components, and the hardware abstraction techniques. The course also covers the C programming techniques for embedded systems and using a fixed point microprocessor for floating point calculations.

ECE 483 Digital Control System Analysis and Design (3 cr.) Class 3. P: ECE 382. An introduction to real-time computer-controlled systems analysis and design in both frequency domain and state space. Sampling theory and its effect on digital control design. Implementation, application, and industrial practice of digital control using digital signal processors and other microprocessors. Matlab/Simulink and its toolboxes are used. Regular computer and lab assignments; final design project required.

ECE 489 Introduction to Robotics (3 cr.) Class 3. P or C: ECE 382. Homogeneous transformations; kinematics of manipulator arms; dynamic equations using Newton-Euler and Euler-Lagrange formulations; inverse kinematics; trajectory generation; task planning; manipulator control; robot languages; robot sensing and vision; and industrial applications of robots. Lab experiments and final project are required.

ECE 491 Engineering Design Project (1-2 cr.) P: Senior standing and consent of a faculty sponsor. The student selects an engineering design project and works under the direction of the faculty sponsor. Suitable projects may be from the local industrial, municipal, state, and educational communities. May be repeated for a maximum of 4 credit hours.

ECE 492 Senior Design (3 cr.) Class 1, Lab 5. P: Senior standing and consent of department chair. General design methodology, consideration of alternative solutions, and project planning in design. Influence of safety, reliability, economics, and aesthetics on design of engineering systems. Interpretation of specifications and requests for proposals. Early in the course, teams of students will

be assigned a major design problem that will be the focus throughout the course. Oral presentation and report writing required.

ECE 495 Selected Topics in Electrical Engineering (1-4 cr.)

ECE 496 Electrical Engineering Projects P: Consent of instructor. Hours and credits to be arranged.

ECE 522 Problems in the Measurement of Physiological Events (3 cr.) Class 3. P: Consent of instructor. Lectures devoted to the methods used to measure physiological events with demonstrations and laboratory exercises to emphasize the practical aspects of quantitative measurements on living subjects. The systems covered are cardiovascular, respiratory, central and peripheral nervous, gastrointestinal, and renal.

ECE 536 Introduction to Computational Intelligence (3 cr.) Class 3. P: C programming; graduate standing or permission of instructor. Basic concepts in theory and paradigms for neural networks, evolutionary computation, and fuzzy logic; algorithms and applications for hybrids of these tools known as computational intelligence are explored. Topics include artificial neural networks, fuzzy systems, and evolutionary computation. Implementations of a number of paradigms are presented, including particle swarm optimization. Applications to various areas such as biomedical engineering and non-linear control are examined.

ECE 537 Multimedia Applications (3 cr.) Class 2, Lab 2. P: ECE 301 and ECE 362. Treatment of multimedia algorithms and implementation using high-speed multimedia processors. Detailed discussion of entropy coding, transform coding, speech compression, image compression, video compression and architecture, addressing modes, and instruction set of multimedia processors.

ECE 538 Digital Signal Processing I (3 cr.) Class 3. P: ECE 301 and ECE 302 or equivalent. Theory and algorithms for processing of deterministic and stochastic signals. Topics include discrete signals, systems, transforms, linear filtering, fast Fourier transforms, nonlinear filtering, spectrum estimation, linear prediction, adaptive filtering, and array signal processing.

ECE 544 Digital Communications (3 cr.) Class 3. P: ECE 440 or graduate standing. Introduction to digital communication systems and spread spectrum communications. Analog message digitization, signal space representation of digital signals, binary and M-ary signaling methods, detection of binary and M-ary signals, comparison of digital communication systems in terms of signal energy and signal bandwidth requirements. The principal types of spread-spectrum systems are analyzed and compared. Application of spread spectrum to multiple-access systems and to secure communication systems is discussed.

ECE 546 Digital Computational Techniques for Electronic Circuits (3 cr.) Class 3. P: ECE 255 and 301 or graduate standing. Digital computer methods for DC, AC, and transient analysis of electronic circuits. Linear, nonlinear, and piecewise linear dynamic circuits. Actual usage of programs ECAP,

SPICE, CORNAP, and SNAP in course work along with study of algorithms used in these programs.

ECE 547 Introduction to Computer Communication Networks (3 cr.) Class 3. P: ECE 302 or equivalent. A qualitative and quantitative study of issues in design, analysis, and operation of computer communication and telecommunication networks as they evolve toward the integrated networks of the future, employing both packet and circuit-switching technology. Packet and circuit switching, the OSI standards for architecture and protocols, elementary queuing theory for performance evaluation, random access techniques, local area networks, reliability and error recovery, and integrated networks.

ECE 554 Electronic Instrumentation and Control Circuits (3 cr.) Class 3. P: ECE 255 and ECE 301 or graduate standing. Analysis and design of special amplifiers, pulse circuits, operational circuits, DC amplifiers, and transducers used in instrumentation, control, and computation.

ECE 559 MOS VLSI Design (3 cr.) Class 3. P: ECE 305 and 365. Introduction to most aspects of large-scale MOS integrated circuit design, including device fabrication and modeling; useful circuit building blocks; system considerations; and algorithms to accomplish common tasks. Most circuits discussed are treated in detail, with particular attention given those whose regular and/or expandable structures are primary candidates for integration. All circuits are digital and are considered in the context of the silicon-gate MOS enhancement-depletion technology. Homework requires the use of existing IC mask layout software; term projects assigned.

ECE 563 Programming Parallel Machines (3 cr.) Class 3. P: ECE 264 and 463. Examines how to program parallel processing systems. Various parallel algorithms are presented to demonstrate different techniques for mapping tasks onto parallel machines. Parallel architectures to be considered are: SIMD (synchronous), MIMD (asynchronous), and mixed-mode (SIMD/MIMD hybrid). Machines that represent these classes to be used in the course are the MasPar MP-1 (SIMD); nCUBE 2 (MIMD); and PASM (mixed-mode). There will be three programming projects, one on each machine. The similarities and differences among the machines and their languages will be discussed.

ECE 565 Computer Architecture (3 cr.) Class 3. P: ECE 365 or graduate standing. An introduction to problems of designing and analyzing current machine architectures. Major topics include performance and cost analysis, pipeline processing, vector machines and numerical applications, hierarchical memory design, and multiprocessor architectures. A qualitative approach allowing a computer system designer to determine the extent to which a design goal is emphasized.

ECE 566 CISC Microprocessor System Design (3 cr.) Class 3. P: ECE 365 or equivalent. An overview of advanced-architecture CISC microprocessors and their associated support components, with emphasis on incorporating these devices into both general-purpose and embedded board-level designs for multi-microprocessor systems utilizing open-architecture

system buses. Survey of 32-bit CISC microprocessor, memory management, floating point support, advanced peripherals, PLD-base "glue logic" design, performance evaluation, IEEE-standard open-architecture system buses, and various pertinent interface and networking standards. Design experience is gained through a comprehensive, semester-long project.

ECE 569 Introduction to Robotic Systems (3 cr.) Class 3. P: ECE 382 Basic components of robotic systems; selection of coordinate frames; homogeneous transformations; solutions to kinematics of manipulator arms; velocity and force/torque relations; dynamic equations using Euler-Lagrange formulation; digital simulation of manipulator motion; motion planning; obstacle avoidance; controller design using torque method; and classical controllers for manipulators. Lab experiments and final project required.

ECE 570 Artificial Intelligence (3 cr.) Class 3. P: ECE 359 or equivalent. Basic understanding of data structures including the proper use of arrays, lists, trees, and queues. Understanding of searching and sorting concepts. Basic understanding of probability and statistics, including Bayes rule, statistical tests of significance, and normal distribution.

ECE 574 Software Engineering Methodology (3 cr.) Class 3 P: ECE 359 or equivalent. Life-cycle models, software planning, software analysis, software design including data flow and data structure design, software testing methods, and software documentation. Software design project required.

ECE 580 Optimization Methods for Systems and Control (3 cr.) Class 3. P: Consent of instructor or graduate standing. Introduction to optimization theory and methods, with applications in systems and control. Nonlinear unconstrained optimization, linear programming, nonlinear constrained optimization, various algorithms and search methods for optimizations, and their analysis. Examples from various engineering applications are given.

ECE 595 Selected Topics in Electrical Engineering Hours and credits to be arranged.

ECE 600 Random Variables and Signals (3 cr.) Class 3. P: ECE 440 or ECE 483 or graduate standing. Engineering applications of probability theory. Problems of events, independence, random variables, distribution and density functions, expectations, and characteristic functions. Dependence, correlation, and regression; multivariate Gaussian distribution. Stochastic processes, stationarity, ergodicity, correlation functions, spectral densities, random inputs to linear systems, Gaussian processes.

ECE 602 Lumped System Theory (3 cr.) Class 3. P: ECE 301. P or C: MATH 511 or consent of instructor. An investigation of basic theory and techniques of modern system theory, emphasizing linear state model formulations of continuous- and discrete-time systems in the time and frequency domains. Coverage includes notion of linearity, time invariance, discrete- and continuous-times state models, canonical forms, associated transfer functions and impulse response models, the state transition matrix, the Jordan form, controllability, observability, and stability.

ECE 604 Electromagnetic Field Theory (3 cr.) Class 3. P: ECE 311 or graduate standing. Review of general concepts (Maxwell's equations, materials interaction, boundary conditions, energy flow); statics (Laplace's equation, Poisson's equation); distributed parameter systems (classification of solutions, transmission lines, and waveguides); radiation and antennas (arrays, reciprocity, Huygen's principle); a selected special topic (e.g., magnetostatics, waves in anisotropic media, and optical fibers).

ECE 606 Solid-State Devices (3 cr.) Class 3. P: ECE 305, graduate standing or consent of instructor. A relatively broad, moderate-depth coverage of semiconductor devices and related topics. Semiconductor fundamentals required in the operational analysis of solid-state devices; detailed examination of the positive-negative (PN) junction diode and PN junction devices; heterojunction surface devices including Schottky diode, the MOS capacitor, and the MOSFET.

ECE 608 Computational Models and Methods (3 cr.) Class 3. P: ECE 359 or equivalent or consent of instructor. Computation models and techniques for the analysis of algorithm complexity. The design and complexity analysis of recursive and nonrecursive algorithms for searching, sorting, and set operations; graph algorithms; matrix multiplication; polynomial evaluation; FFT calculations; and NP-complete problems.

ECE 637 Digital Image Processing I (3 cr.) Class 3. P: ECE 302 and ECE 538, or equivalent. Introduction to digital image-processing techniques for enhancement, compression, restoration, reconstruction, and analysis. 2-D signals and systems; sampling and scanning; random fields; discrete cosine transform; discrete Karhunen-Loeve transform; grayscale transformations; linear, ranked order, and morphological filters; human vision, printing, and display of images; entropy-based compression; vector quantization; block truncation coding; transform coding; predictive coding; image degradation models; Wiener filter; constrained deconvolution; computed tomography; edge detection; shape representation; and segmentation.

ECE 645 Estimation Theory (3 cr.) Class 3. P: ECE 600. The basic estimation theory commonly applied in communications and signal-processing systems. Covers basic theory and concepts, linear estimation, and special topics. Applications in the communications sciences considered throughout.

ECE 649 Speech Processing by Computer (3 cr.) Class 3. P: ECE 301 (knowledge of basic digital signal processing: time and frequency domains, Fourier and Z-transforms, convolution, knowledge of C or FORTRAN on UNIX). Models of the vocal tract; identification and extraction of speech features; speech transmission and compression systems; the recognition of speech and speakers by computers; control of speech synthesizers. Computer project required.

ECE 668 Introduction to Artificial Intelligence (3 cr.) Class 3. P: ECE 600 or consent of instructor. This course consists of four parts: The first part deals with heuristic search and shows how problems involving search can be solved more efficiently by the

use of heuristics; how in some cases it is possible to discover heuristics automatically; knowledge representation and deduction, with emphasis on predicate calculus and associated concepts such as resolution and unification. The last part of the course will deal with the design of a small-scale reasoning framework using the paradigm of logic programming.

ECE 680 Modern Automatic Control (3 cr.) Class 3. P: ECE 602 or consent of instructor. Theoretical methods in optimal control theory. Topics include the calculus of variations and the Pontryagin minimum principle with applications to minimum energy problems. Geometric methods will be applied to the solution of minimum time problems. Computational methods, singular problems, observer theory, and sufficient conditions for existence of solutions are also discussed.

ECE 696 Advanced Electrical Engineering Projects (Variable Credit) Individual research projects to be approved by the supervising faculty member before registering for the course. An approved written report must be filed before credit is given. (This course cannot be used on a Ph.D. plan of study for the primary area.)

ECE 698 Research (M.S. thesis) (1-6 cr.) Research for M.S. thesis.

ECE Employment Enrichment Programs

ECE C199, C299, C399, C494 and C499 Cooperative Education Practice I-V (1-5 cr.) P: Sophomore standing and program advisor approval. A semester or summer of external, full-time, related career experiences designed to enhance the student's academic program and preparedness for an intended career with a business, industry, or government agency. A comprehensive written report on the co-op practice is required.

ECE I199, I299, I399, I494, I499 Career Enrichment Internship I-V (1-5 cr.) P: Sophomore standing and program advisor approval. A semester or summer of external, full-time, related career experiences designed to enhance the student's preparedness for entering an initial or second career. A comprehensive written report on the internship experience is required.

ECE E199, E299, E399, E494, E499 Employment Enrichment Experience I-V (1-5 cr.) P: Sophomore standing and program advisor approval. A semester or summer of external, full- or part-time related employment enrichment experiences designed to enhance the student's academic program and preparedness for an intended career with a business, industry, or government agency. A comprehensive written report on the enrichment experience is required.

Freshman Engineering (ENGR)

ENGR 195 Selected Topics in Engineering I (0-3 cr.) Selected topics in general or interdisciplinary engineering.

ENGR 195 Introduction to the Engineering Profession (1 cr.) Class 1. P: None. This course introduces students to the engineering profession and to campus resources. The course is designed to help students develop essential communication and thinking skills along with the study and time-management skills needed for success in studying engineering. Collaborative techniques used in engineering practice are utilized.

ENGR 196 Introduction to Engineering (3 cr.) Class 2, Lab 2. C: MATH 151 or 154 or equivalent. An overview of the engineering profession and methodologies of engineering design. Students develop skills using computer-aided design and simulation software for engineering systems. Projects and homework are implemented and tested in a laboratory environment. The course also introduces the students to standard computer application software and university network and software resources.

ENGR 197 Introduction to Programming Concepts (3 cr.) Class 2, Lab 2. C: MATH 163. Basic concepts and applications of software programming for solving engineering problems. Topics include techniques for developing structured algorithms, data input and output, conditional statements, loops, recursion, subroutines, arrays, and elementary concepts in mathematical programming. Examples, homework, and applications of programming concepts make extensive use of Matlab and the C programming language.

Materials Engineering (MSE)

MSE 345 Introduction to Engineering Materials (3 cr.) Class 3. P: Junior standing in engineering. Introduction to the structure and properties of engineering materials, including metals, alloys, ceramics, plastics, and composites. Characteristics and processing affecting behavior of materials in service.

MSE 523 Physical Ceramics (3 cr.) Class 3. P: Graduate standing. Physical and chemical processes responsible for microstructure development in modern ceramic materials; relationship between microstructures and physical properties. Solid-state processes, including structural defects, diffusion, sintering and grain growth, reaction rates, nucleation and growth, and microstructure development; mechanical and thermal behavior, including deformation, strength, thermal properties, and thermal and compositional stresses; and electrical and magnetic behavior, including electrical conductivity, dielectric properties, and magnetic properties.

MSE 540 High Temperature Alloys (3 cr.) Class 3. P: Consent of instructor. Theory of alloying and relationship among temperature, structure, and mechanical properties in nickel, cobalt, and iron base alloys. Effects of thermomechanical processing. Analysis of microstructures by transmission electron microscopy, scanning electron microscopy, X-ray diffraction, and X-ray microprobe.

MSE 575 Transport Phenomena in Solids (3 cr.) Class 3. P: Senior standing in engineering or science.

Energetics and kinetics of phase change in metals and alloys. Nucleation and growth models, with special emphasis on role of crystal defects. Selected topics in multicomponent diffusion.

MSE 576 Corrosion (3 cr.) Class 3. P or C: CHEM 373 or MSE 345. Rate-controlling steps in electrode processes; activation, ohmic, and concentration polarization; passivation; potentiostatic studies and alloy design; applications to engineering systems.

MSE 597 Selected Topics in Materials Science and Materials Engineering Hours and credits to be arranged.

Mechanical Engineering (ME)

ME 200 Thermodynamics I (3 cr.) Class 3. P: PHYS 152, C: MATH 261. First and second laws, entropy, reversible and irreversible processes, properties of pure substances. Application to engineering problems.

ME 262 Mechanical Design I (3 cr.) Class 2, Lab 2. P: ENGR 197 and ME 270. C: ME 274. The basic concepts of mechanical design are introduced with emphasis on use of computer-aided design techniques. Applications are chosen from the area of linkage and mechanism design. Lab involves implementation of computer techniques in solving mechanical design problems.

ME 270 Basic Mechanics I (3 cr.) Class 3. P: PHYS 152. P or C: MATH 261. Fundamental concepts of mechanics, force systems and couples, free body diagrams, and equilibrium of particles and rigid bodies. Distributed forces; centroids and centers of gravity of lines, areas, and volumes. Second moment of area, volumes, and masses. Principal axes and principal moments of inertia. Friction and the laws of dry friction. Application to structures and machine elements, such as bars, beams, trusses, and friction devices.

ME 272 Mechanics of Materials (4 cr.) Class 3, Lab 2. P: ME 270 or equivalent. Analysis of stress and strain; equations of equilibrium and compatibility; stress/strain laws; extension, torsion, and bending of bars; membrane theory of pressure vessels; elastic stability; selected topics. Experiments include testing of mechanical properties and failure analysis.

ME 274 Basic Mechanics II (3 cr.) Class 3. P: ME 270. P or C: MATH 262. Kinematics of particles in rectilinear and curvilinear motion. Kinetics of particles, Newton's second law, energy, and momentum methods. Systems of particles, kinematics and plane motion of rigid bodies, forces and accelerations, energy and momentum methods. Kinetics, equations of motions, energy and momentum methods for rigid bodies in three-dimensional motion. Application to projectiles, gyroscopes, machine elements, and other engineering systems.

ME 301 Thermodynamics II (3 cr.) Class 3. P: ME 200. Properties of gas mixtures, air-vapor mixtures, applications availability. Thermodynamics of combustion processes, equilibrium, energy conversion, power, and refrigeration systems.

ME 310 Fluid Mechanics (4 cr.) Class 3, Lab 2. P: ME 200 and ME 274. Continuum, velocity fields, fluid statics, basic conservation laws for systems and control volumes, dimensional analysis. Euler and Bernoulli equations, viscous flows, boundary layers, flows in channels and around submerged bodies, and one-dimensional gas dynamics.

ME 314 Heat and Mass Transfer (4 cr.) Class 3, Lab 2. P: ME 310. Fundamental principles of heat transfer by conduction, convection, and radiation; mass transfer by diffusion and convection. Application to engineering situations.

ME 330 Modeling and Analysis of Dynamic Systems (3 cr.) Class 3. P: ECE 201 and MATH 262. Introduction to dynamic engineering systems; electrical, mechanical, fluid, and thermal components; linear system response; Fourier series and Laplace transform.

ME 340 Dynamic Systems and Measurements (3 cr.) Class 2, Lab 2. P: ME 330. Modeling and formulation of differential equations for dynamic systems, including mechanical vibratory systems, thermal systems, fluid systems, electrical systems, and instrumentation systems. Analysis of dynamic systems and measuring devices including transient response and frequency response techniques, mechanical systems, transducers, and operational amplifiers. Consideration of readout devices and their responses to constant, transient, and steady-state sinusoidal phenomena. Calibration and data analysis techniques are introduced. Both analog and digital computation are included.

ME 372 Mechanical Design II (4 cr.) Class 3, Lab 2. P: ME 262, ME 272, and ME 274. Type and dimensional synthesis of mechanisms. Vector loop approach. Numerical methods and graphical techniques. Computer-aided design techniques. Cams and gears. Static and dynamic balancing. Strength design for mechanisms and robotics. Reliability principles.

ME 401 Engineering Ethics and Professionalism (1 cr.) Class 1. P: Senior standing. Some ethical, social, political, legal, and ecological issues that a practicing engineer may encounter. Students may not receive credit for both ECE 401 and ME 401.

ME 402 Biomechanics of the Musculoskeletal System (3 cr.) Class 3. P: ME 272. Mechanical design of organisms, with emphasis on the mechanics of the musculoskeletal system. Selected topics in prosthesis design and biomaterials; emphasis on the unique biological criteria that must be considered in biomechanical engineering design.

ME 403 Thermal Science Applications (3 cr.) Class 3. P: ME 310 and ME 314. Applications of thermal science theory to such topics as heating, ventilating, and air conditioning; real cycles of combustion engines; turbomachinery; power plants and combustion.

ME 418 Heating and Air-Conditioning Analysis and Design (3 cr.) Class 3. P: ME 314. Psychometrics, air-conditioning systems, equipment selection, duct design, and piping design. Heating and cooling loads, solar radiation, and heat transmission

in buildings. Heat pumps. Application of air-conditioning to residences, computer rooms, light commercial, and high-rise buildings.

ME 430 Power Engineering (3 cr.) Class 3. P: ME 200. Rankine cycle analysis, fossil-fuel steam generators, energy balances, fans, pumps, cooling towers, steam turbines, availability (second law) analysis of power systems, energy management systems, and rate analysis.

ME 433 Principles of Turbomachinery (3 cr.) Class 3. P: ME 200 and ME 310. Unified treatment of principles underlying fluid mechanic design of hydraulic pumps, turbines, and gas compressors. Similarity and scaling laws. Cavitation. Analysis of radial and axial flow machines. Blade element performance. Radial equilibrium theory. Centrifugal pump design. Axial compressor design.

ME 446 CAD/CAM Theory and Application (3 cr.) Class 2, Lab 2. P: ENGR 196, ENGR 197, ME 262, or consent of instructor. Introduction to computer-aided design (CAD) and computer-aided manufacturing (CAM) theory and applications. Topics include CAD/CAM systems and integration, geometric modeling, process planning, and tool path generation, CAD/CAM interfacing with CNC (computer numerically controlled) machines, machining, and CNC programming. Projects involve CAD/CAM-based product development cycle. Hands-on experience is attained through laboratory experiment and actual CNC manufacturing.

ME 450 Introduction to Computer-Aided Engineering (3 cr.) Class 3. P: ME 262 and ME 272. Introduction to the use of finite element methods for analysis and design. Applications involving stress analysis and heat transfer of solids. The use of existing software and hardware for computer-aided engineering.

ME 451 Computational Methods in Thermal Sciences (3 cr.) Class 3. P: ME 314 and ME 330. Mathematical description of heat transfer and fluid flow problems, discretization methods, heat convection, convection and diffusion, incompressible flows, high speed flow.

ME 458 Composite Materials (3 cr.) Class 3. P: ME 272. Potential applications of composite materials. Basic concepts of fiber reinforced composites, manufacturing, micro and macro-mechanics, and static analysis of composite laminates. Performance (fatigue and fracture) and their application to engineering design.

ME 462 Engineering Design (4 cr.) Class 3, Recitation 2. P: MSE 345 and ME 372. C: ME 314. Concurrent engineering design concept is introduced. Application of the design is emphasized. Design problems from all areas of mechanical engineering are considered.

ME 472 Advanced Mechanics of Materials (3 cr.) Class 3. P: ME 272 and MATH 262. Studies of stresses and strains in three-dimensional elastic problems. Failure theories and yield criteria. Bending of curved beams. Torsion of bars with noncircular cross sections. Beams on elastic foundation. Energy methods. Selected topics. Students may not receive credit for both ME 472 and ME 550.

ME 474 Vibration Analysis (3 cr.) Class 3. P: ME 272, ME 274, and ME 330. Introduction to simple vibratory motions, such as undamped and damped free and forced vibrations, vibratory systems with more than one degree of freedom, Coulomb damping, transverse vibration of beams, torsional vibration, critical speed of shafts, and applications.

ME 482 Control System Analysis and Design (3 cr.) Class 3. P: ME 330 or equivalent. Classical feedback concepts, root locus, Bode and Nyquist techniques, state-space formulation, stability, design applications. Students may not receive credit for both ECE 382 and ME 482.

ME 484 Engineering Industrial Practice IV (1-5 cr.) P: Consent of the co-op advisor. For engineering students on cooperative assignment only.

ME 491 Engineering Design Project (1-2 cr.) P: Senior standing and consent of a faculty sponsor. The student selects an engineering design project and works under the direction of the faculty sponsor. Suitable projects may be from the local industrial, municipal, state, and educational communities. May be repeated for up to 4 credit hours.

ME 497 Selected Topics in Mechanical Engineering Hours and credits to be arranged.

ME 500 Advanced Thermodynamics (3 cr.) Class 3. P: ME 301. The empirical, physical basis of the laws of thermodynamics. Availability concepts and applications. Properties and relations between properties in homogeneous and heterogeneous systems. The criteria of equilibrium. Application to a variety of systems and problems including phase and reaction equilibrium.

ME 505 Intermediate Heat Transfer (3 cr.) Class 3. P: ME 315. Heat and mass transfer by diffusion in one-dimensional, two-dimensional, transient, periodic, and phase change systems. Convective heat transfer for external and internal flows. Similarity and integral solution methods. Heat, mass, and momentum analogies. Turbulence. Buoyancy-driven flows. Convection with phase change. Radiation exchange between surfaces and radiation transfer in absorbing-emitting media. Multimode heat transfer problems.

ME 506 Two-Phase Flow and Heat Transfer (3 cr.) Class 3. P: ME 314. Basic two-phase flow equations, homogeneous model, drift-flux model, flow regimes, pressure drop in two-phase flow. Nucleation and bubble dynamics, pool boiling, subcooled boiling, forced convection boiling, critical heat flux in pool boiling, critical heat flux in forced convection boiling, minimum heat flux, film boiling, post dryout heat transfer. Flow instabilities, choking in two-phase flow, film and dropwise condensation. Applications to heat exchangers. Special boiling and two-phase flow problems.

ME 509 Intermediate Fluid Mechanics (3 cr.) Class 3. P: ME 310 or equivalent. Fluid properties, basic laws for a control volume, kinematics of fluid flow, dynamics of frictionless incompressible flow, basic hydrodynamics, equations of motion of viscous flow, viscous flow applications, boundary layer theory, wall turbulence, and lift and drag of immersed bodies.

ME 510 Gas Dynamics (3 cr.) Class 3. P: ME 310. Flow of compressible fluids. One-dimensional flows including basic concepts, isentropic flow, normal and oblique shock waves, Rayleigh line, Fanno line, and simple waves. Multidimensional flows including general concepts, small perturbation theory for linearized flows, and method of characteristics for nonlinear flows.

ME 525 Combustion (3 cr.) Class 3. P: ME 310 and CHEM C105. Physical and chemical aspects of basic combustion phenomena. Classification of flames. Measurement of laminar flame speeds. Factors influencing burning velocity. Theory of flame propagation. Flammability, chemical aspects, chemical equilibrium. Chain reactions. Calculation and measurement of flame temperature. Diffusion flames. Fuels. Atomization and evaporation of liquid fuels. Theories of ignition, stability, and combustion efficiency.

ME 550 Advanced Stress Analysis (3 cr.) Class 3. P: ME 272 and MATH 262. Studies of stresses and strains in three-dimensional problems. Failure theories and yield criteria. Stress function approach to two-dimensional problems. Bending of nonhomogeneous asymmetric curved beams. Torsion of bars with noncircular cross sections. Energy methods. Elastic stability. Introduction to plates. Students may not receive credit for both ME 472 and ME 550.

ME 551 Finite Element Analysis (3 cr.) Class 3. P: Graduate standing or consent of instructor. Concepts of finite elements methods; formulations for different engineering problems and their applications. Variational methods, the finite element concept, and applications in stress analysis, dynamics, fluid mechanics, and heat transfer.

ME 552 Advanced Applications of Finite Element Method (3 cr.) Class 3. P: ME 551 or equivalent. Various algorithms for nonlinear and time-dependent problems in two and three dimensions. Emphasis on advanced applications with problems chosen from fluid dynamics, heat transfer, and solid mechanics areas. Independent project required.

ME 558 Composite Materials (3 cr.) Class 3. P: ME 272. Potential applications of composite materials. Basic concepts of fiber-reinforced composites. Manufacturing, micro- and macro-mechanics, and static analysis of composite laminates. Performance (fatigue and fracture) and its application to engineering design.

ME 560 Kinematics (3 cr.) Class 3. P: ME 372. Geometry of constrained-plane motion with application to linkage design. Type and number synthesis, size synthesis. Path curvature, inflection circle, cubic of stationary curvature. Finite displacements, three- and four-separated positions. Graphical, analytical, and computer techniques.

ME 562 Advanced Dynamics (3 cr.) Class 3. P: ME 372 or consent of instructor. Dynamics of multiple-degrees-of-freedom mechanical systems. Holonomic and nonholonomic constraints. Lagrange's equations of motion. Hamilton's principle for holonomic systems. Kinematics and kinetics of rigid-body motion, including momentum and energy methods, linearized

equations of motion. Classification of vibratory systems: gyroscopic, circulatory forces. Stability of linear systems: divergence and flutter. Applications to gyroscopes, satellite dynamics, etc.

ME 563 Mechanical Vibrations (3 cr.) Sem. 1. Class 3. P: ME 272 and ME 340, or equivalent. Review of systems with one degree of freedom. Lagrange's equations of motion for multiple-degree-of-freedom systems. Matrix methods. Transfer functions for harmonic response, impulse response, and step response. Convolution integrals for response to arbitrary inputs. Principle frequencies and modes. Applications to critical speeds, measuring instruments, isolation, torsional systems. Nonlinear problems. Mechanics staff.

ME 569 Mechanical Behavior of Materials (3 cr.) Class 3. P: MSE 345 or equivalent. How loading and environmental conditions can influence the behavior of materials in service. Elastic and plastic behavior, fracture, fatigue, low- and high-temperature behavior. Introduction to fracture mechanics. Emphasis is on methods of treating these conditions in design.

ME 572 Analysis and Design of Robotic Manipulators (3 cr.) Class 3. P: ME 372. Introduction to the analysis and design of robotic manipulators. Kinematic configurations, forward and inverse position solutions, velocity and acceleration, path planning, offline programming, force and torque solutions, rigid body dynamics, motors and actuators, robot design, sensors and controls, computer simulation, and graphical animation.

ME 575 Theory and Design of Control Systems (3 cr.) Class 3. P: Consent of instructor. Modern control techniques, state space representations, performance evaluation, controllability, observability, and observer design are introduced. The Bond graph is developed as a versatile computer-aided method of modeling coupled systems.

ME 581 Numerical Methods in Mechanical Engineering (3 cr.) Class 3. P: ME 314, ENGR 197 or its equivalent, and ME 372. The solution to problems arising in mechanical engineering using numerical methods. Topics include nonlinear algebraic equations, sets of linear algebraic equations, eigenvalue problems, interpolation, curve fitting, ordinary differential equations, and partial differential equations. Applications include fluid mechanics, gas dynamics, heat and mass transfer, thermodynamics, vibrations, automatic control systems, kinematics, and design.

ME 582 Thermal Stress Analysis (3 cr.) Offered in alternate years. Class 3. P: ME 272, ME 314 or equivalent, ordinary differential equations, or consent of instructor. Methods for determining the deformations and stresses due to temperature changes in materials. Fundamentals of thermoelasticity. Solutions to two-dimensional thermoelastic problems. Thermal stresses in beams and plates. Thermoelastic buckling. Introduction to thermoviscoelasticity, thermal fracture, and fatigue. Applications to dissimilar materials such as ceramic coatings, glass-metal bonds, and composites.

ME 597 Advanced Mechanical Engineering Projects I (1-6 cr.) Sem. 1 and 2. Summer Session. (May be repeated for credit). P: Master's standing. Projects or special topics of contemporary importance or of special interest that are outside the scope of the standard graduate curriculum can be studied under the Mechanical Engineering Projects courses. Interested students should seek a faculty advisor by meeting with individual faculty members who work in their area of special interest and then prepare a brief description of the work to be undertaken in cooperation with the advisor.

ME 614 Computational Fluid Dynamics (3 cr.) Class 3. P: ME 581 or AAE 516 or equivalent; ME 509 or ME 510 or equivalent; or consent of instructor. Application of finite difference methods, finite element methods, and the method of characteristics for the numerical solution of fluid dynamics problems. Incompressible viscous flows: vorticity transport equation, stream function equation, and boundary conditions. Compressible flows: treatment of shocks, implicit and explicit artificial viscosity techniques, and boundary conditions. Computational grids.

ME 697 Advanced Mechanical Engineering Projects II (1-6 cr.) Sem 1 and 2. Summer Session. (May be repeated for credit). Projects or special topics of contemporary importance or of special interest that are outside the scope of the standard graduate curriculum can be studied under the Mechanical Engineering Projects course. Interested students should seek a faculty advisor by meeting with individual faculty members who work in their area of special interest and then prepare a brief description of the work to be undertaken in cooperation with the advisor.

ME 698 Research (M.S. Thesis) (1-5 cr.) Research credit for students in M.S. thesis option.

ME Employment Enrichment Programs

ME C184, C284, C384, C483, and C484 Cooperative Education Practice I-V (1-5 cr.) P: Sophomore standing, and program advisor approval. A semester or summer of external, full-time, related career experiences designed to enhance the student's preparedness for an intended career with a business, industry, or government agency. A comprehensive written report on the internship practice is required.

ME I184, I284, I384, I483, and I484 Career Enrichment Internship I-V (1-5 cr.) P: Sophomore standing and program advisor approval. A semester or summer of external, full-time, related career experiences designed to enhance the student's preparedness for entering an initial or second career. A comprehensive written report on the internship experience is required.

Technology Programs

The School of Engineering and Technology offers a variety of technology programs at the associate and bachelor's degree levels. Programs for full-time students pursuing these technology departments are

presented in this section. Although the school sets the normal length of time needed to complete each degree program, the required time may vary for individual students. For example, well-qualified students with excellent high school preparation may complete a program in less than the length of time indicated. Other students who decide to combine cooperative (co-op) education or internships with their course work may take more time to complete all degree requirements. Students may adjust their course loads for job or personal reasons, and plans of study can be tailored to meet the needs of part-time and evening students. Needing to study over a longer time should be no obstacle to completing the program successfully.

Associate of Science

Science and technology activities range from the applied and practical to the highly theoretical and abstract. At one extreme are the theoretical scientists; at the other are the mechanics, draftspeople, and service personnel. Within this spectrum, educational backgrounds include doctoral degrees, master's degrees, bachelor's degrees, and associate degrees at the university level, as well as certificates and diplomas from other postsecondary educational and training institutions.

The Associate of Science degree offered in the School of Engineering and Technology at IUPUI is awarded upon successful completion of two years of university-level study in applied science. Graduates of these programs are called technicians.

Technicians' jobs require applying technical knowledge and skills and, normally, the manipulative skills necessary to perform technical tasks. Technicians have considerable knowledge of the materials and processes involved and are equipped with the ability to apply the principles of physical and biological sciences, generally using instruments rather than tools. Their job contribution is mainly through mental activity, combined with applied skills. In many organizations the technician can move up in the organization to higher levels of responsibility, if he or she is capable and is willing to pursue further education.

The following associate degree programs are offered by the School of Engineering and Technology at IUPUI:

Program	Administered by
Architectural Technology	Department of Construction Technology
Biomedical Electronics Engineering	Department of Electrical and Computer Engineering Technology
Civil Engineering Technology	Department of Construction Technology
Computer Engineering Technology	Department of Electrical and Computer Engineering Technology
Computer Graphics Technology	Department of Mechanical Engineering Technology
Computer Integrated Manufacturing Technology	Department of Mechanical Engineering Technology
Computer Technology (Commercial Option)	Department of Computer Technology

Computer Technology (Technical Option)	Department of Computer Technology
Electrical Engineering Technology	Department of Electrical and Computer Engineering Technology
Electronics Manufacturing Technology	Departments of Mechanical Engineering Technology and Electrical and Computer Engineering Technology
Interior Design	Department of Construction Technology
Mechanical Engineering Technology	Department of Mechanical Engineering Technology
Organizational Leadership and Supervision	Department of Organizational Leadership and Supervision

Bachelor of Science

The Bachelor of Science degree is awarded under the “two-plus-two” education plan. A student following this plan first earns an associate degree in two years and then may complete a bachelor’s degree after two more years. Transfer students must meet all departmental requirements.

A student is awarded an Associate of Science degree upon successful completion of the two-year program. This degree indicates that the person who receives it is educated at the technician level. These individuals may go directly into the work force, or they may decide to continue their studies.

Students who want to continue may be admitted for an additional two years of bachelor’s-level study in the various technology programs. Students who successfully complete such a program are awarded a Bachelor of Science degree, which provides the basis for increased job responsibility.

The following technology bachelor’s degree programs are available to qualified students:

Program	Administered by
Computer Engineering Technology	Department of Electrical and Computer Engineering Technology
Computer Graphics Technology	Department of Mechanical Engineering Technology
Computer Integrated Manufacturing Technology	Department of Mechanical Engineering Technology
Computer Technology	Department of Computer Technology
Construction Technology	Department of Construction Technology
Electrical Engineering Technology	Department of Electrical and Computer Engineering Technology
Mechanical Engineering Technology	Department of Mechanical Engineering Technology
Organizational Leadership and Supervision	Department of Organizational Leadership and Supervision

For more specific information, see the advisors in the respective departments.

Technology Plans of Study

Semester-by-semester plans of study follow for the technology programs available in the school. These plans generally reflect the order in which courses are offered. In each plan, departmental courses are listed first, followed by courses outside the department or school that are required or recommended. Technology courses are described in the section “Technology Course Descriptions” in this bulletin.

In some technology plans of study, the word “selective” is used. This term refers to a course chosen from a list of particular courses recommended by the departments in a given area or subject. Students should get in touch with their faculty advisors for information about permissible electives or selectives.

Department of Computer Technology (CPT)

Professors Ho (*Chair*), Jafari, McRobbie, Orr

Associate Professor Price

Assistant Professors Defazio, Fernandez, Starks, Williamson

Director of CPTOnline Sullivan

Lecturers Clark, Stevens

The Department of Computer Technology (CPT) offers programs at both the associate and bachelor’s degree levels. These programs are designed to provide an applications-oriented, practical education that prepares students for careers as systems analysts (people who design, install, and evaluate information systems); commercial and technical programmer/analysts (people who design, write, and maintain programs for a variety of applications); and network systems specialists (people who select, specify, and maintain the networking needs of a company).

The Purdue University Associate of Science degree in computer technology at IUPUI features two four-semester options designed to prepare graduates to work in either **commercial** or **technical** areas. Students may choose to continue their education, rather than entering the job market, upon completion of their selected associate degree option. Others may return to college after a period of time in practical employment. Purdue University at IUPUI offers the educational opportunities of a B.S. degree to both types of students.

Students who must interrupt their course of study for two calendar years or more will be required to meet all requirements for the program as it stands at the time of their return. CPT courses over 10 years old may have to be repeated; check with a CPT advisor.

Purdue’s Bachelor of Science degree in computer technology is available in three tracks: a **standard** track with selected concentrations to be determined by student and advisor, a **business** track that also earns a minor from the Indiana University Kelley School of Business, and a **technical** track that earns a minor in

Digital Electronics Technology from the Department of Electrical Engineering Technology.

The Department of Computer Technology has been a leader in offering degree courses that can be completed by distance education. Selected courses may be taken either partially or completely via the Web.

The department offers a **minor** in computer technology to students majoring in other areas of study at IUPUI. The computer technology minor provides a basic set of computer concepts and programming courses along with a sequence of computing specialty courses.

The department also offers two Web-based certificate programs, which can be completed via distance education. The **Information Technology Certificate** focuses on the principles and techniques used to develop Web-based business applications. The six courses that comprise the program cover the application development process including analysis, design, Web programming, database integration and implementation. The **E-Commerce Development Certificate** is targeted to individuals who already have some application development experience but in a non-Web environment. This six-course program focuses on advanced techniques for building data-driven e-commerce applications including Web-based programming and development techniques.

For more information, visit our Web site at www.engr.iupui.edu/cpt or contact the Department of Computer Technology at (317) 274-9705 or et_cpt@iupui.edu.

Associate of Science in Computer Technology (Commercial Option)

The commercial option of the A.S. degree program features a business-oriented approach to computer information systems. Students take basic computing courses covering programming, systems analysis, data communications, operating systems, databases, and current technology. Coupled with these computing courses are courses in interpersonal communications, business and technology, and general education. Graduates of this program option can apply their educational credits toward the B.S. degree, or they can enter the workforce directly. The A.S. commercial option is designed to provide the fundamental requirements for either the standard or the business track of the B.S. in Computer Technology.

Associate of Science in Computer Technology (Commercial Option)

Program Plan of Study by Semester

Freshman Year

First Semester

CPT 106 Using a Personal Computer	3
CPT 115 Computer Information Systems Fundamentals.....	3
CPT 120 Quantitative Analysis I.....	3
BUS A100 Basic Accounting Skills ¹	1
MATH 151 Algebra and Trigonometry	5
	14 or 15

¹ BUS A100 required only for students who plan to continue into the business track of the B.S. Degree.

Second Semester

CPT 140 Programming Constructs Laboratory.....	3
CPT 223 Web Page Design.....	3
CPT 288 Using a Database Management System.....	3
BUS X100 Small Business Administration or IET 104 Industrial Organization or OLS 252 Human Behavior in Organizations ²	3
ENG W131 Elementary Composition I.....	3
	<u>15</u>

Sophomore Year**Third Semester**

CPT 220 Quantitative Analysis II.....	3
CPT 233 Hardware/Software Architecture	3
CPT 262 Problem Solving and Programming or CPT 270 Java Programming I	3
CPT 254 Analysis and Design.....	3
BUS/OLS Elective or IET 350 ³	3
	<u>15</u>

Fourth Semester

CPT 286 Operating Systems and Administration	3
CPT 307 Data Communications	4
BUS/OLS Elective ⁴	3
TCM 220 Technical Report Writing.....	3
COMM R110 Fundamentals of Speech Communication	3
	<u>16</u>

Total: 60-61 Credit Hours

Associate of Science in Computer Technology (Technical Option)

The technical option of the A.S. degree program features an approach that combines the fundamentals of electrical circuits and electronics with computer concepts and programming. This option also provides a basic foundation in applied mathematics and general physics for the problem-solving environment. Students who graduate with an A.S. degree, technical option, can apply their educational credits toward the B.S. degree or enter the work force directly. The A.S. technical option is designed to provide the fundamental requirements of the standard or the technical track of the Computer Technology B.S. degree.

Associate of Science in Computer Technology (Technical Option)

Program plan of study by semester

Freshman Year**First Semester**

CPT 106 Using a Personal Computer	3
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²A student who plans to continue into the business track of the B.S. degree should take BUS X100.

³A student who plans to continue into the business track of the B.S. degree must take BUS A201 rather than a BUS/OLS elective.

⁴A student who plans to continue into the business track of the B.S. Degree must take BUS A202 rather than a BUS/OLS elective.

CPT 115 Computer Information Systems

Fundamentals	3
EET 105 Digital Fundamentals I.....	3
MATH 151 Algebra and Trigonometry.....	5
	<u>14</u>

Second Semester

CPT 140 Programming Constructs Laboratory.....	3
CPT 223 Web Page Design.....	3
CPT 288 Using a Database Management System.....	3
EET 155 Digital Fundamentals II	3
ENG W131 Elementary Composition I.....	3
	<u>15</u>

Sophomore Year**Third Semester**

CPT 254 Analysis and Design	3
CPT 262 Problem Solving and Programming or CPT 270 Java Programming I	3
EET 205 Introduction to Microprocessors.....	4
COMM R110 Fundamentals of Speech Communication	3
Science elective ⁵	4
	<u>17</u>

Fourth Semester

CPT 286 Operating Systems and Administration	3
CPT 307 Data Communications	4
TCM 220 Technical Report Writing.....	3
EET 116 Electrical Circuits	4
MATH 221 Calculus for Technology I.....	3
	<u>17</u>

Total: 63 Credit Hours

Bachelor of Science in Computer Technology

General Requirements

1. Completion of the requirements for the Associate of Science degree in computer technology or an equivalent degree.
2. Completion of the core requirements of a selected track. The required minimum of 120-122 credit hours (depending on the selected track) includes credits earned within the A.S. degree. See the following summary table of the core requirements of selected tracks for more specifics concerning requirements and courses.
3. A minimum of 39 credit hours must be earned in courses at the 300 level or higher. Students must verify upper-level credit with a CPT advisor.

Core Requirements

The bachelor's degree core requirements are fulfilled by meeting all of the requirements of a selected track. Three tracks are available for a student to select: a **standard** track with selected concentrations, a **business** track that also earns a minor from the IU Kelley School of Business, and a **technical** track that earns a minor in Digital Electronics Technology from the Department of Electrical and Computer Engineering Technology.

⁵Science electives may come from chemistry, physics, and life sciences; however, a laboratory must be associated with the course.

Core Requirements for Bachelor of Science Computer Technology

Track	Standard	Technical	Business
Core Requirements (minimum of 39 credit hours at upper level)	120 credit hours	120 credit hours	122 credit hours
General Education			
Communications [composition, speech, and report writing]	12	12	12
Humanities [creative arts, history, literature, religion, folklore, art appreciation, theatre, music, anthropology, philosophy, and languages]	3	3	3
Social Sciences [anthropology, economics, political science, psychology, sociology, and selected geography courses]	6	6	6
Mathematics/Science Science electives may come from chemistry, geology, physics, and life sciences; however, a laboratory must be associated with the course.	21	25	18
Business/Supervision	9	None	19
Upper Level			
Technical Science, Specialty, Design	29	24	27
Lower Level			
Technical Science, Specialty, Design	31	28	31
Electrical Engineering Technology Courses	None	22	None
Electives Free Electives—Students are strongly encouraged to select their electives from areas <i>outside</i> of CPT. The use of CPT courses as electives is allowed <i>only</i> with <i>prior</i> advisor approval.	9	None	6

Specific Track Programs by Content Area—Junior and Senior Years

Standard Track

Mathematics/Science

MATH 221 Calculus for Technology I	3
MATH 222 Calculus for Technology II	3
Science Elective ¹	4
	10

Technical Science, Specialty, Design

300-level Programming Language	3
CPT Selectives (300/400 level)	18
CPT 336 Data Communications Lab	2
CPT Selectives (any level)	6
	29

Free Electives

Communications, Humanities, and Social Sciences

Upper-level Technical Communications Elective	3
Humanities Elective	3
Social Science Electives	6
	12

Technical Track

Communications, Humanities, and Social Sciences

Upper-level Technical Communications Elective	3
Humanities Elective	3
Social Science Electives	6
	12

EET Requirements

EET 305 Advanced Microprocessors	4
EET 357 Real-Time Digital Signal Processing or	
EET 417 Analog and Digital Circuits	4
	8

Mathematics/Science

CPT 220 Quantitative Analysis II	3
CPT 320 Quantitative Analysis III	3
MATH 222 Calculus for Technology II	3
Science Elective ²	4
	13

¹ Science electives may come from chemistry, geology, physics, and life sciences; however, they must have a laboratory associated with the course.

² Science electives may come from chemistry, physics, and life sciences; however, they must have a laboratory associated with the course.

Technical Science, Specialty, Design

CPT 303 Communications Security and Network Controls	3
CPT 336 Data Communications Lab	2
CPT 402 Design and Implementation of Local Area Networks	3
CPT 440 Communication Network Design	3
300-Level Programming Language	3
CPT Selectives (300/400 level)	7
CPT Selective (any level)	3
	24

Business Track

Communications, Humanities, and Social Sciences

ECON E201 Introduction to Microeconomics	3
ECON E202 Introduction to Macroeconomics	3
TCM 350 Visual Elements of Technical Documents	3
Humanities Elective	3
	12

Business Minor Requirements

BUS F301 Financial Management	3
BUS M301 Introduction to Marketing Management	3
BUS P301 Operations Management	3
	9

Mathematics/Science

MATH 119 Brief Survey of Calculus I	3
Science Elective ¹	4
	7

Technical Science, Specialty, Design

CPT 336 Data Communications Lab	2
CPT 352 Decision Support and Information Systems	3
300-Level Programming Language	3
CPT 374 Systems and Database Analysis	4
CPT 384 Systems Design	3
CPT 410 Information Technology Ethics and Leadership	3
CPT 484 Systems Analysis and Design Project	3
CPT Selectives (any kind)	6
	27

Upper-Level Courses

CPT 303 Communications Security and Network Controls	3
CPT 307 Data Communications	3
CPT 312 Advanced Web Site Design	3
CPT 313 Commercial Web Site Development	3
CPT 315 Introduction to Multimedia Programming	3
CPT 316 Introduction to Virtual Reality	3
CPT 317 Systems and Networks Administration	3
CPT 320 Quantitative Analysis III	3
CPT 323 Multimedia	3
CPT 325 Human-Computer Interaction	3
CPT 329 Java Server Programming	3
CPT 336 Data Communications Lab	3
CPT 347 Advanced ASP .Net Programming	3
CPT 352 Decision Support and Information Systems	3
CPT 362 Object Oriented Programming	3
CPT 374 Systems and Database Analysis	4
CPT 384 Systems Design	3
CPT 388 Topics in Programming Languages	3
CPT 402 Design and Implementation of Local Area Networks	3
CPT 407 Fundamentals of Intelligent Agents	3
CPT 410 IT Ethics and Leadership	3
CPT 412 XML-Based Web Applications	3
CPT 419 Streaming Media Technology Design	3
CPT 420 Advanced Multimedia	3
CPT 423 Electronic Commerce	3
CPT 426 Enterprise Networks	3
CPT 436 Advanced E-Commerce Development	3
CPT 440 Communication Network Design	3
CPT 479 Database Physical Design and Implementation	3
CPT 484 Systems Analysis and Design Project	3
CPT 490 Senior Project	1-4
CPT 499 Computer Technology	1-4

Minor in Computer Technology

A minor in computer technology requires the completion of either 18 or 19 credit hours of computer technology courses, plus certain requirements in mathematics, statistics, and computer applications. Required courses in computer technology are provided in two groupings: (a) core requirements, and (b) a specialty sequence. At least 12 credit hours of the minor must be taken at IUPUI.

¹ Science electives may come from chemistry, geology, physics, and life sciences; however, they must have a laboratory associated with the course.

Students who wish to complete a minor in computer technology must already be accepted as a major by some other department on the IUPUI campus. Students should ask their department's academic advisor whether a minor in computer technology is acceptable with their major field.

A student who applies for a computer technology minor must have a mathematics competency as evidenced by completing MATH 118 and 119 or MATH 153 and 154, or MATH 151, and a college-level introductory statistics course. Students are also expected to have successfully completed CPT 106 Using a Personal Computer or equivalent.

The computer technology minor's core requirements (9 credit hours):

CPT 115 Computer Information Systems Fundamentals or BUS S302 Management Information Systems	3
CPT 140 Programming Constructs Laboratory	3
CPT 262 Problem Solving and Programming or 270 Java Programming I	3

Prior to continuing into the specialty sequences, a student must have

- completed the above computer technology minor's core requirements,
- attained the mathematics and statistical ability that would be evidenced by college-level algebra and college-level statistics courses,
- completed 30 credit hours toward his or her major,
- earned a cumulative grade point average (GPA) of 2.0 or higher.

The student who has met these conditions then selects one of the specialty sequences below and proceeds to complete the three courses of that selected specialty.

The computer technology specialty sequences are:

Systems and database development (10 cr.)
CPT 288 Using a Database Management System
CPT 374 Systems and Database
CPT 254 Analysis and Design or
BUS A337 Computer Based Accounting Systems Analysis

Network systems (9 cr.)

CPT 307 Data Communications
CPT 336 Data Communications Lab
CPT 402 Design and Implementation of Local Area Networks

Software systems (9 cr.)

CPT 233 Hardware/Software and Architecture
CPT 286 Operating Systems and Administration
 300-level programming language course (3 cr.)

Web technologies (9 cr.)

CPT 223 Web Page Design
CPT 323 Multimedia
CPT 423 Electronic Commerce

Information Technology Certificate

The Information Technology Certificate program requires the completion of 18 credit hours, all delivered over the Web. The courses cover the principles and techniques of the application development process as they apply to a Web environment.

The Information Technology Certificate requirements are:

CPT 112 Information Technology Fundamentals	3
CPT 212 Web Site Design	3
CPT 213 Web-based Analysis and Design	3
CPT 214 Web Data Management	3
CPT 215 Web Programming	3
CPT 313 Commercial Web Site Development	3
	18

E-Commerce Development Certificate

The E-Commerce Development Certificate requires the completion of 18 credit hours. All of the courses are offered over the Web. The program covers advanced Web techniques in an e-commerce environment.

The E-Commerce Development Certificate requirements are:

CPT 213 Web-Based Analysis and Design	3
CPT 312 Advanced Web Site Design	3
CPT 412 XML-Based Web Applications	3
Web Programming (two-course sequence):	
Java Thread	
CPT 270 Introduction to Java	3
CPT 329 Java Server Programming	3
or	
ASP .Net Thread	
CPT 242 Introduction to ASP .Net	3
CPT 347 Advanced ASP .Net	3
CPT 346 Advanced E-Commerce Development	3

Department of Construction Technology (CNT)

Professor Sener (Chair)

Associate Professor Gokhale

Assistant Professors Coles, Cyr, Kim, Kinsey

Adjunct Faculty Best, Fenske, Zody

Lecturers Botner, Lucas

The Department of Construction Technology (CNT) offers three Associate of Science degree programs: one in architectural technology, one in civil engineering technology, and one in interior design. Upon satisfactory completion of an A.S. degree in architectural technology or civil engineering technology programs, students may continue to obtain the degree of Bachelor of Science with a major in construction technology. For their B.S. degree studies in Construction Technology, students follow the track in construction management. Students in all the above degree programs/majors may apply to enter the co-op or internship work programs following their freshman year.

For more information, contact the Department of Construction Technology at (317) 274-2413 or et_cnt@iupui.edu.

Associate of Science in Architectural Technology (ART)

Accredited by the Technology Accreditation Commission of the Accreditation Board of Engineering and Technology, Inc. (ABET), 111 Market Place, Suite 1050, Baltimore, MD 21202, (410) 347-7700.

The Architectural Technology (ART) curriculum is a two-year associate degree program designed to provide students with the skills to work in the areas of architectural drafting, detailing and presentation, simple structural design, planning, estimating, inspection, materials testing, surveying, and sales. The curriculum is not intended to prepare students for registration as professional architects.

Emphasis is on basic engineering principles of mechanics, surveying, residential and commercial construction drawings, mechanical and electrical systems in buildings, and materials testing. Also included are courses in mathematics, physical sciences, social sciences, communications, computer programming fundamentals, and the humanities.

Graduates typically find employment with architectural firms, construction firms, builders, testing companies, building material suppliers, and various governmental agencies. Graduates are also eligible to pursue a Bachelor of Science in Construction Technology in the Construction (Management) Option.

Freshman Year

First Semester

ART 117 Construction Graphics and CAD	3
ART 165 Building Systems and Materials	3
CNT 105 Introduction to Construction Technology ..	3
ENG W131 Elementary Composition I	3
MATH 153 Algebra and Trigonometry I	3
	15

Second Semester

ART 120 Architectural Presentation	3
ART 155 Residential Construction	3
ART 210 History of Architecture I	3
ART 285 Electrical Systems for Buildings	2
COMM R110 Fundamentals of Speech Communication	3
MATH 154 Algebra and Trigonometry II	3
	17

Sophomore Year

Third Semester

ART 222 Commercial Construction	3
ART 284 Mechanical Systems for Buildings	3
CET 104 Fundamentals of Surveying	3
CET 160 Statics	3
PHYS 218 General Physics I	4
	16

Fourth Semester

CET 260 Strength of Materials	3
CET 267 Materials Testing	2
CNT 280 Quantity Survey	3
TCM 220 Technical Report Writing	3
MATH 221 Calculus for Technology I	3
PHYS 219 General Physics II	4
	18

Associate of Science in Civil Engineering Technology (CET)

Accredited by the Technology Accreditation Commission of the Accreditation Board of Engineering and Technology, Inc. (ABET), 111 Market Place, Suite 1050, Baltimore, MD 21202, (410) 347-7700.

The program in Civil Engineering Technology (CET) prepares students for employment in civil engineering firms, construction firms, surveying firms, testing laboratories, material supply companies, city engineering offices, and highway departments. Graduates of the two-year program are also prepared for office positions; laboratory work; or on-site positions in surveying, field engineering, and inspection.

Emphasis is on basic engineering principles of mechanics, soils, surveying, mechanical and electrical systems in buildings, civil engineering drafting, and materials testing. Also included are courses in mathematics, physical sciences, social sciences, communications, computer programming fundamentals, and the humanities.

Graduates may also continue their education by pursuing a Bachelor of Science in Construction Technology following the track in construction (management) option. The curriculum is not intended to prepare students for registration as professional engineers.

Freshman Year

First Semester

ART 117 Construction Graphics and CAD	3
ART 165 Building Systems and Materials	3
CNT 105 Introduction to Construction Technology ..	3
ENG W131 Elementary Composition I	3
MATH 153 Algebra and Trigonometry I	3
	15

Second Semester

ART 285 Electrical Systems for Buildings	2
CNT 110 Construction Accounting ¹	3
CNT Elective	3
COMM R110 Fundamentals of Speech Communication	3
MATH 154 Algebra and Trigonometry II	3
Humanities or Social Science Elective	3
	17

Sophomore Year

Third Semester

ART 284 Mechanical Systems for Buildings ²	3
CET 104 Fundamentals of Surveying	3
CET 160 Statics	3
CET 275 Applied Civil Engineering Drafting	3
PHYS 218 General Physics I	4
	16

Fourth Semester

CET 260 Strength of Materials	3
CET 267 Materials Testing	2
CNT 280 Quantity Survey	3
MATH 221 Calculus for Technology I	3
PHYS 219 General Physics II	4
TCM 220 Technical Report Writing	3
	18

Associate of Science in Interior Design (INTR)

The interior design curriculum is a two-year associate degree program developed according to the Foundation for Interior Design Education and Research (FIDER) standards and guidelines. Employing faculty from the areas of interior design, architecture, and construction and using the latest technology, it provides students with the skills to work as interior design assistants and be able to sit for the National Council for Interior Design Qualification (NCIDQ) exam after four years of work experience.

The emphasis is on technical knowledge, methodology, and aesthetic appreciation of interior design for the health, safety, and welfare of the public; equipping students with visual presentation and communication skills; imparting an awareness for environmental, business, ethical, and other contemporary issues; and linking classroom knowledge to application in the field.

Graduates typically find employment in residential and commercial design, as interior design assistants to interior design and architectural firms, sales associates in retail or manufacturing settings, manufacturer's reps for products used in the design and construction industries, CAD technicians for interior design, or as self-employed designers.

Freshman Year

First Semester

INTR 103 Introduction to Interior Design	3
INTR 151 Textiles for Interiors	3
ART 120 Architectural Presentation	3
ENG W131 Elementary Composition I	3
COMM 110 Fundamentals of Speech Communication	3
	15

Second Semester

INTR 124 Space Planning for Interiors	3
INTR 125 Color and Lighting of Interiors	3
INTR 202 Interior Materials and Applications	3
INTR 204 History of Interiors and Furniture	3
ART 117 Construction Graphics and CAD	3
CNT 105 Introduction to Construction Technology ..	3
	18

Sophomore Year

Third Semester

INTR 224 Residential Interior Design Studio	3
INTR 225 Three-Dimensional Interior Design Studio	3
ART 155 Residential Construction	3
ART 210 History of Architecture I	3
BUS A200 Foundations of Accounting or CNT 110 Construction Accounting	3
	15

Fourth Semester

INTR 226 Commercial Interior Design Studio	3
INTR 228 Interior Design for Contemporary Issues and Needs	3
INTR 252 Interior Building Systems	3
INTR 253 Business Practices of Interior Design	3
INTR 290 Interior Design Experience	1
Humanities or Social Science Elective	3
	16

¹ Construction elective for surveying option

² CET 204 Land Survey Systems for the Surveying Option

Bachelor of Science in Construction Technology

Construction (Management) Option

Accredited by the Technology Accreditation Commission of the Accreditation Board of Engineering and Technology, Inc. (ABET), 111 Market Place, Suite 1050, Baltimore, MD 21202, (410) 347-7700.

The bachelor's program in construction technology (CNT) is open to students with an A.S. in Architectural Technology or Civil Engineering Technology or with an equivalent degree. The curriculum is intended to further students' knowledge in areas of construction contract administration, specification writing, construction field operations, construction scheduling/project control, construction costs and bidding, and construction management through further course work. Additional course work in economics, law, management, mathematics, lab sciences, and training in written and oral communication is also included. Many students complete all or part of their course work on a part-time basis by taking a reduced course load during the semesters they are engaged in construction-related employment.

Graduates of the program are prepared for employment with architects, contractors, building product companies, consulting engineering firms, construction material and equipment vendors, testing labs, utilities, and state and other government organizations. Occupations such as detailing, drafting, inspecting, estimating, project management, merchandising, supervising, and testing may also be filled by graduates of this program. The curriculum is not intended to prepare students for registration as professional architects or engineers.

Junior Year

Fifth Semester

CET 312 Construction and Route Surveying.....	3
CET 350 Structural Design for Construction	3
CNT 347 Construction Contract Administration and Specifications.....	3
ECON E201 Introduction to Microeconomics.....	3
Mathematics Selective	3
	<u>15</u>

Sixth Semester

CNT 302 Construction Law and Ethics.....	3
CNT 341 Construction Scheduling and Project Control.....	3
CNT 452 Construction Safety and Inspection.....	3
CNT 499 Specialty Construction Topics ¹	3
Humanities or Social Science Elective	3
	<u>15</u>

Summer Session

CNT 390 Construction Work Experience	1
	<u>1</u>

¹Or **CNT 110** Construction Accounting or Construction Elective

Senior Year

Seventh Semester

CNT 330 Construction Field Operations	3
CNT 342 Construction Cost and Bidding	3
CET 452 Hydraulics and Drainage	3
TCM 340 Correspondence in Business and Industry ..	3
Science Elective	4
	<u>16</u>

Eighth Semester

CNT 447 Construction Project Management	3
CNT 470 Site Development	3
CNT 494 Engineering Economics for Construction ..	3
CET 430 Soils and Foundations	3
Humanities or Social Science Elective	3
	<u>15</u>

Bachelor of Science in Construction Technology

Surveying Option

Note: The surveying-related courses shown in the fall and spring semester course listings below, on certificate requirement course listings, and on department study plan sheets will **not** always be offered in their respective semesters or with any regular frequency. Offerings will depend on the number of students wanting to take a course and availability of instructors. Students who need to complete their degrees or certificates within a limited time should be aware that this may not be possible and that the department neither makes any guarantees for course offering frequency nor assumes any responsibility or liability for the consequences arising from this practice.

This degree program is accredited by the Technology Accreditation Commission of the Accreditation Board of Engineering and Technology, Inc. (ABET), 111 Market Place, Suite 1050, Baltimore, MD 21202, (410) 347-7700.

The Bachelor of Science (B.S.) degree program in construction technology (CNT) – surveying option is open to students with an A.S. degree in civil engineering technology (CET) or an equivalent degree. The curriculum is intended to further students' knowledge in areas of surveying, including construction and route surveying, control surveying, property surveying, surveying computations, global positioning systems (GPS), and geodesy, as well as surveying law, legal descriptions, geographical information systems (GIS), and cartography through additional technical course work. Additional course work in economics, law, statistics, lab science, and in written and oral communications is also included. Many students complete all or part of their course work on a part-time basis by taking a reduced course load during the semesters they are engaged in construction-related employment.

Graduates of the program are prepared for employment with surveying companies, architects,

contractors, consulting engineering firms, utilities, and state and other government organizations. Occupations such as detailing, drafting, and surveying may also be filled by experienced graduates of the program. The curriculum is intended to prepare graduates for registration as land surveyors. The curriculum is not intended to prepare students for registration as professional architects or engineers.

Junior Year

Fifth Semester

CNT 347 Construction Contract Administration and Specifications.....	3
CET 210 Surveying Computations	3
CET 312 Construction and Route Surveying	3
ECON E201 Introduction to Microeconomics.....	3
STAT 301 Elementary Statistical Methods I	3
	<u>15</u>

Sixth Semester

CET 304 Legal Descriptions.....	3
CET 308 GPS and Geodesy for Surveyors	3
CNT 302 Construction Law and Ethics	3
OLS 252 Human Behavior in Organizations	3
Science Selective	4
	<u>16</u>

Summer Session

CNT 390 Construction Experience	1
	<u>1</u>

Senior Year

Seventh Semester

CET 305 Control Surveying	3
CET 307 Property Surveying	3
CET 350 Structural Design for Construction	3
CET 452 Hydraulics and Drainage	3
TCM 340 Correspondence in Business and Industry ..	3
	<u>15</u>

Eighth Semester

CET 402 Surveying Law	3
CET 430 Soils and Foundations	3
CNT 470 Site Development	3
CNT 494 Engineering Economics for Construction ..	3
Humanities/Social Science Elective	3
	<u>15</u>

Construction Drafting Certificate

This certificate is designed to provide educational opportunities for those who have an aptitude for and a desire to learn the drafting skills needed in the construction industry. This program focuses on computer-aided drafting education, thus providing contemporary training in the use of the latest drafting technology in the construction industry. Those who earn the certificate will qualify for entry-level positions as draftspeople in architectural, engineering, or other construction-related firms and will be competent in employing the current technology.

Good candidates for the program are people who wish to acquire additional marketable skills in construction drafting, who wish to upgrade existing

drafting skills, or who wish to earn tangible verification of acquired skills and bodies of knowledge related to construction drafting.

Curriculum

ART 117 Construction Graphics and CAD	3
ART 120 Architectural Presentation	3
ART 155 Residential Construction	3
ART 165 Building Systems and Materials	3
ART 222 Commercial Construction	3
CNT 105 Introduction to Construction Technology	3
CET 275 Applied Civil Engineering Drafting	3
INTR 103 Introduction to Interior Design	3
	<hr/> 24

Any student formally admitted to the university may be a candidate for this certificate. Courses taken at other universities may be recognized as equivalent to selected required courses, and course credit may be given for appropriate job experience.

Construction Management Certificate

This certificate is designed to provide educational opportunities for those who need or desire to learn contemporary construction management techniques and skills and employ the latest technology in doing so. This program emphasizes developing the skills required by the construction industry and relies on the use of computers, whenever possible, to provide a contemporary education in the use of the latest technology in the management process. Those who earn the certificate will qualify for entry-level positions as superintendents, project managers, estimators, or schedulers for construction-related firms and will be competent in using the latest technology.

Good candidates for the program are people who wish to acquire additional marketable skills in construction management, who wish to upgrade existing construction management skills, or who wish to earn tangible verification of acquired skills and bodies of knowledge related to construction management.

Curriculum

ART 165 Building Systems and Materials	3
CNT 280 Quantity Survey	3
CNT 330 Construction Field Operations	3
CNT 341 Construction Scheduling and Project Control	3
CNT 342 Construction Cost and Bidding	3
CNT 347 Construction Contract Administration and Specifications	3
CNT 447 Construction Project Management	3
CNT 452 Construction Safety and Inspection	3
	<hr/> 24

Prerequisites: **CET 160** Statics, **TCM 220** Technical Report Writing and **CET 430** Soils and Foundations.

Any student who has 8 credit hours in college-level technical mathematics including algebra, trigonometry, and calculus; proven computer competency; the ability to read and interpret construction documents; and is formally admitted to the university, may be a candidate for this certificate.

Courses taken at other universities may be recognized as equivalent to selected required courses, course credit may be given for appropriate job experience.

Surveying Certificate

Note: The surveying-related courses shown in the fall and spring semester course listings below, on certificate requirement course listings, and on department study plan sheets will **not** always be offered in their respective semesters or with any regular frequency. Offerings will depend on the number of students wanting to take a course and availability of instructors. Students who need to complete their degrees or certificates within a limited time should be aware that this may not be possible and that the department neither makes any guarantees for course offering frequency nor assumes any responsibility or liability for the consequences arising from this practice.

This certificate is designed to provide educational opportunities for people working in the surveying industry who wish to sit for the land surveying registration examination or enhance their surveying skills. This program focuses on the development of the skills required for land surveying and emphasizes the latest technology, such as computer-aided drafting, and use of total stations and ground positioning satellite systems, to provide a contemporary education in the use of the latest technology in land surveying. Those who earn the certificate will qualify for entry-level positions as surveyors in engineering, surveying, and construction-related firms and be competent in applying the latest technology. They will have also fulfilled the surveying course requirements for permission to take the Surveyor in Training (SIT) examination in the state of Indiana.

Good candidates for the program are people who wish to acquire additional marketable skills in surveying, who wish to upgrade existing surveying skills, or who wish to earn tangible verification of acquired skills and bodies of knowledge, particularly those intending to qualify for the Surveyor in Training examination.

Curriculum

CET 104 Surveying Fundamentals and Topography	3
CET 210 Surveying Computations	3
CET 275 Applied Civil Engineering Drafting	3
CET 304 Legal Descriptions for Surveyors	3
CET 305 Control Surveying	3
CET 307 Property Surveys	3
CET 308 GPS and Geodesy for Surveyors	3
CET 312 Construction and Route Surveying	3
CET 402 Surveying Law	3
	<hr/> 27

CET 104 has a prerequisite of **MATH 153** and a corequisite of **MATH 154**; **CET 275** has a prerequisite of **ART 117**. Courses taken at other universities may be recognized as equivalent to selected required courses, as corequisites, or as prerequisites, and course credit may be given for appropriate job experience. Any student formally admitted to the university who has the prerequisite or corequisite courses may be a candidate for this certificate. (Note: In addition to the above courses, additional mathematics and physical science course credit is required to qualify for the land surveying registration examination.)

Department of Electrical and Computer Engineering Technology (ECET)

Professors Conrad, Needler (*Chair*), Pfile

Associate Professors Cooney, Lin

Assistant Professors Christe, Reid

The Department of Electrical and Computer Engineering Technology (ECET) offers degree programs at the associate and bachelor levels. Degree programs at the two-year associate level consist of the Associate of Science degree with a major in Biomedical Electronics Technology (BMET), the Associate of Science degree with a major in Electrical Engineering Technology (EET), and the Associate of Science degree with a major in Computer Engineering Technology (CpET). Graduates from associate degree programs are eligible for admission to the department's programs leading to the Bachelor of Science degree. The department offers Bachelor of Science degrees in Electrical Engineering Technology and Computer Engineering Technology.

For more information, contact the Department of Electrical and Computer Engineering Technology at (317) 274-2363, e-mail et_ecet@iupui.edu, or visit our Web site at www.engr.iupui.edu/ecet.

Associate of Science in Biomedical Electronics Technology

This two-year program consists of a combination of courses in basic electrical circuits, analog and digital electronics, microprocessor fundamentals, mathematics, physics, medical instrumentation, human anatomy, and human physiology. The program is enhanced by the department's interaction with the Indiana University Hospital on the IUPUI campus and with other area hospitals.

The biomedical electronics technology (BMET) curriculum enables graduates to find employment as biomedical equipment technicians, medical equipment sales personnel, medical equipment servicing/maintenance technicians, and research technicians.

The curriculum satisfies the educational requirements of the Association for the Advancement of Medical Instrumentation (AAMI) and the Certified Biomedical Equipment Technician License.

Graduates of this program are eligible for admission to the Bachelor of Science degree program in electrical engineering technology. Approximately two additional years of study are necessary to complete the requirements for the B.S. in Electrical Engineering Technology.

Freshman Year**First Semester**

BMET 105 Introduction to Biomedical Electronics Technology	1
EET 102 Electrical Circuits I	4
EET 105 Digital Fundamentals I	3
EET 114 Introduction to Microcomputers	3
MATH 153 Algebra and Trigonometry I	3
ENG W131 Elementary Composition I	3
	17

Second Semester

BMET 240 Introduction to Medical Electronics	3
EET 152 Electrical Circuits II	4
EET 154 Analog Electronics I	4
EET 155 Digital Fundamentals II	3
MATH 154 Algebra and Trigonometry II	3
	17

Sophomore Year**Third Semester**

BMET 220 Applied Human Biology for BMET	3
BMET 320 Biomedical Electronic Systems I	4
EET 204 Analog Electronics II	4
PSY B104 Psychology as a Social Science	3
MATH 221 Calculus for Technology I ¹	3
	17

Fourth Semester

BMET 290 Biomedical Equipment Technician Practicum	4
EET 205 Introduction to Microprocessors	4
COMM R110 Fundamentals of Speech Communication	3
PHYS 218 General Physics I ¹	4
	15

Clinical Laboratory Equipment Technology Certificate Program

This certificate features instruction focused on the biomedical equipment principles for the clinical laboratory environment. Upon certificate completion, participants will be able to apply their knowledge of electronic principles to equipment within the clinical laboratory environment including theory, function, operation and problem solving. They will be able to function and communicate as part of a multidisciplinary medical team within the clinical laboratory setting as well as understand and apply safety issues within the clinical laboratory. Participants are expected to possess a knowledge of active, passive, and digital prior to the certificate program.

Note: Materials for these courses are located on the World Wide Web and are supplemented with a textbook, handouts, software, and self-paced learning aids. Assignments and communication between students and faculty are maintained via e-mail. Upon successful completion of two-thirds of each course, students will come to campus for one day (eight hours total) of hands-on experience, invited speakers, and visits to area hospitals.

¹See "Advanced Curriculum Program" at the end of this department listing.

All students must complete the following courses:

BMET 330 Electronics for the Clinical Laboratory Technician	3
BMET 360 Applied Human Biology for the Clinical Laboratory	3
BMET 370 Safety and Regulations in the Clinical Laboratory	3
BMET 380 Clinical Laboratory Equipment	3
	12

Associate of Science in Computer Engineering Technology

The purpose of the new Computer Engineering Technology (CpET) Program is to train engineering technicians and technologists to design, develop, and implement modern computer-based applications. The CpET program is offered by a partnership arrangement between the Departments of Electrical and Computer Engineering Technology and Computer Technology. The technical portion of the program is a combination of revised EET courses, CPT courses, and new CpET courses. A major emphasis of the CpET program is practice-oriented, "hands-on" training in laboratories for each CpET course to provide students and graduates with a rich experience in computer applications.

Two options within CpET are offered: the industrial computing option and the telecommunications option. The industrial computing option is recommended for students interested in computer-controlled systems and the telecommunications option is recommended for students interested in data communications and networking.

The two-year CpET associate graduates will have career opportunities in providing software support and implementing hardware for computer systems involving automation, controls, telecommunications, embedded systems, product development, and instrumentation with job titles such as software technician, automation technician, controls technician, and network technician. The associate degree program will also prepare graduates for admission to the Bachelor of Science degree program in CpET.

The Associate of Science study plan in Computer Engineering Technology for the Industrial Computing option is as follows.

Freshman Year**First Semester**

EET 103 Topics in Electrical Technology	1
EET 105 Digital Fundamentals	3
EET 116 Electrical Circuits or EET 102 Electrical Circuits I	4
CPT 120 Quantitative Analysis I	3
ENGL W131 Elementary Composition I	3
MATH 153 Algebra and Trigonometry I	3
	17

Second Semester

EET 154 Analog Electronics I	4
EET 155 Digital Fundamentals II	3
CPT 140 Visual Basic	3
COMM R110 Fundamentals of Speech Communications	3
MATH 154 Algebra and Trigonometry II	3
	16

Sophomore Year**Third Semester**

EET 205 Microprocessors	4
EET 234 PC Systems I	4
CPT 262 Problem Solving and Programming	3
PHYS 218 General Physics I	4
MATH 221 Calculus for Technology I	3
	18

Fourth Semester

EET 284 Computer Communications	4
EET 302 Introduction to Control Systems	4
CPT 286 Operating Systems and Administration	3
Humanities or Social Science Elective	3
	14

The Associate of Science study plan in computer engineering technology for the telecommunications option is as follows.

Freshman Year**First Semester**

EET 103 Topics in Electrical Technology	1
EET 105 Digital Fundamentals	3
EET 116 Electrical Circuits or EET 102 Electrical Circuits	4
CPT 120 Quantitative Analysis I	3
ENG W131 Elementary Composition I	3
MATH 153 Algebra and Trigonometry I	3
	17

Second Semester

EET 154 Analog Electronics I	4
EET 155 Digital Fundamentals II	3
CPT 140 Visual Basic	3
COMM R110 Fundamentals of Speech Communications	3
MATH 154 Algebra and Trigonometry II	3
	16

Sophomore Year**Third Semester**

EET 205 Microprocessors	4
EET 234 PC Systems I	4
CPT 262 Problem Solving and Programming	3
PHYS 218 General Physics I	4
MATH 221 Calculus for Technology I	3
	18

Fourth Semester

EET 284 Computer Communications	4
CPT 286 Operating Systems and Administration	3
CPT/EET Elective	3
Humanities or Social Science Elective	3
	13/14

Bachelor of Science in Computer Engineering Technology

The purpose of the new Computer Engineering Technology Program is to train engineering technicians and technologists to design, develop, and implement modern computer-based applications. The CpET program is offered by a partnership between the Departments of Electrical and Computer Engineering Technology and Computer Technology. The technical portion of the program is a combination of revised EET courses, CPT courses, and new CpET courses. A major emphasis of the CpET program is practice-oriented, "hands-on" training in laboratories for each CpET course to provide students and graduates with a rich experience in computer applications.

Two options within CpET are offered: the industrial computing option and the telecommunications option. The industrial computing option is recommended for students interested in computer-controlled systems and the telecommunications option is recommended for students interested in data communications and networking.

B.S. degree graduates will be able to provide software design as well as support for computer systems for automation, controls, telecommunications, embedded systems, product development, and instrumentation. Graduates of the B.S. CpET program will have titles such as software technologist, automation engineer, applications engineer, telecommunications engineer, and network administrator.

The Bachelor of Science in Computer Engineering Technology study plan for the industrial computing option is as follows.

Junior Year

Fifth Semester

EET 305 Advanced Microprocessors	4
CPT 362 Object Oriented Programming	3
CPT 254 Analysis and Design	3
TCM 220 Technical Report Writing	3
MATH 222 Calculus for Technology II	3
	<u>16</u>

Sixth Semester

EET 371 Automation, Instrumentation, and Process Control	4
EET 434 PC Systems II	4
EET 483 Industrial Local Area Networks	4
TCM 370 Oral Practicum	3
Humanities, Social Science Elective	3
	<u>18</u>

Senior Year

Seventh Semester

EET 357 Real-Time Digital Signal Processing	4
EET 417 Analog and Digital Circuits	4
EET 490 Senior Design Project Phase I	2
CPT 288 Using a Database Management System	3
Humanities, Social Science Elective	3
	<u>16</u>

Eighth Semester

EET 403 Communications II	4
EET 491 Senior Design Project Phase II	2
CHEM C101 Elementary Chemistry	5
Humanities, Social Science Elective	3
	<u>14</u>

The Bachelor of Science in Computer Engineering Technology study plan for the telecommunications option is as follows.

Junior Year

Fifth Semester

EET 403 Communications II	4
CPT 362/388 Object Oriented Programming/Java	3
CPT 426 Enterprise Networks	3
TCM 220 Technical Report Writing	3
MATH 222 Calculus for Technology II	3
	<u>16</u>

Sixth Semester

EET 434 PC Systems II	4
EET 453 Topics in Telecommunications	4
CPT 440 Communication Network Design	3
TCM 370 Oral Practicum	3
Humanities, Social Science Elective	3
	<u>17</u>

Senior Year

Seventh Semester

EET 490 Senior Design Project Phase I	2
CPT 288 Using a Database Management System	3
EET Elective	4
CPT Elective	3
Humanities, Social Science Elective	3
	<u>15</u>

Eighth Semester

EET 491 Senior Design Project Phase II	2
CPT 303 Communications Security and Network Controls	3
CPT 402 Design and Implementation of Local Area Networks	3
CHEM C101 Elementary Chemistry	5
Humanities, Social Science Elective	3
	<u>16</u>

Associate of Science in Electrical Engineering Technology

Accredited by the Technology Accreditation Commission of the Accreditation Board for Engineering and Technology, Inc. (ABET), 111 Market Place, Suite 1050, Baltimore, MD 21202, (410) 347-7700.

This two-year program provides a combination of courses in electricity, electronics, mathematics, science, and general academic areas that lead to the degree of Associate of Science. The program prepares students for careers as technicians in a wide variety of electronic, electrical, and related fields. Students find employment in automation, computer electronics, telecommunications, power, testing, quality assurance, field service, prototype fabrication, process management, cost estimating, and customer

service. Courses in this program are offered in both the daytime and the evening.

Graduates of this program are eligible for admission to the Bachelor of Science degree program. Approximately two additional years of study are necessary to complete the requirements for the B.S. in Electrical Engineering Technology degree.

Freshman Year

First Semester

EET 102 Electrical Circuits I	4
EET 103 Topics in Electrical Technology	1
EET 105 Digital Fundamentals I	3
EET 114 Introduction to Microcomputers	3
MATH 153 Algebra and Trigonometry I	3
ENG W131 Elementary Composition I	3
	<u>17</u>

Second Semester

EET 152 Electrical Circuits II	4
EET 154 Analog Electronics I	4
EET 155 Digital Fundamentals II	3
CGT 120 Electrical and Electronic Drafting	2
MATH 154 Algebra and Trigonometry II	3
	<u>16</u>

Sophomore Year

Third Semester

EET 204 Analog Electronics II	4
EET 205 Introduction to Microprocessors	4
MATH 221 Calculus for Technology I ¹	3
PHYS 218 General Physics ¹	4
COMM R110 Fundamentals of Speech Communication	3
	<u>18</u>

Fourth Semester

EET 212 Electrical Power and Machinery	4
EET 302 Introduction to Control Systems	4
PHYS 219 General Physics ¹	4
Humanities or Social Science Elective	3
	<u>15</u>

Bachelor of Science in Electrical Engineering Technology

Accredited by the Technology Accreditation Commission of the Accreditation Board for Engineering and Technology, Inc. (ABET), 111 Market Place, Suite 1050, Baltimore, MD 21202, (410) 347-7700.

Students who receive the Associate of Science degree in electrical engineering technology or biomedical electronics technology are eligible to enter this Bachelor of Science degree program. All transfer students should meet IUPUI requirements for the Associate of Science degree. The program provides additional study in electrical engineering technology as well as related technical and nontechnical areas essential in modern industry. Graduates of this program are qualified for high-level positions as technologists in diverse industries such as automotive electronics, computer electronics, military electronics, factory automation, broadcasting,

¹See "Advanced Curriculum Program" at the end of this department listing.

electronics manufacturing, telecommunications, energy and power, consumer electronics, robotics, and instrumentation.

Six specialty tracks are available in the B.S. program: communication systems, control systems, digital/microprocessor systems, electronic devices and systems, electronics manufacturing, and power systems. Within each of these tracks, 65 credit hours beyond the A.S. degree are required in the areas of science and mathematics, technical specialty, communications, humanities and social science, and interdisciplinary technical electives. The B.S. requirements are listed below; the recommended curriculum for each specialty track follows.

Junior Year

Fifth Semester

EET 307 Analog Network Signal Processing	4
EET Technical Specialty Elective	4
MATH 222 Calculus for Technology II	3
STAT 301 Elementary Statistical Methods I	3
TCM 220 Technical Report Writing	3
	17

Sixth Semester

EET Technical Specialty Elective	4
EET Technical Specialty Elective	4
MET Interdisciplinary Technical Elective	3
TCM 370 Oral Practicum for Technical Managers....	3
Humanities or Social Science Elective	3
	17

Senior Year

Seventh Semester

EET 490 Senior Design Project, Phase I	2
EET Technical Specialty	4
CHEM C101 Elementary Chemistry I	5
Interdisciplinary Technical Elective	3
Humanities or Social Science Elective	3
	17

Eighth Semester

EET 491 Senior Design Project, Phase II	2
EET Technical Specialty	4
MET Interdisciplinary Technical Elective	3
Interdisciplinary Technical Elective	3
Humanities or Social Science Elective	3
	15

Communication Systems

The communication systems track prepares graduates for career opportunities in communication systems, signal processing, applications and specifications of systems, computer networking, and broadcasting. Students in this track study analog and digital communication systems, radio transmissions and reception, audio signal processing, and local area networks.

EET Technical Specialty Electives

EET 303 Communications I
EET 403 Communications II
EET 357 Real-Time Digital Signal Processing
EET 483 Industrial Local Area Networks
EET Elective

Interdisciplinary Technical Electives

Minimum of 12 credit hours with approval of advisor. See the effective plan of study for course suggestions.

Control Systems

The control systems track prepares graduates for career opportunities in the design and analysis of automatic control systems, including control hardware and software used in automation, robotics, industrial controllers, and military electronics systems. Prospective fields of employment are manufacturing industries, processing industries, and other areas of commerce that use control systems.

EET Technical Specialty Electives

EET 305 Advanced Microprocessors
EET 357 Real-Time Digital Signal Processing
EET 371 Automation, Instrumentation, and Process Control
EET 472 Automatic Control Systems
EET Elective

Interdisciplinary Technical Electives

Minimum of 12 credit hours with approval of advisor. See the effective plan of study for course suggestions.

Digital/Microprocessor Systems

The digital/microprocessor track prepares graduates for career opportunities in design, testing, and troubleshooting of computer-based systems.

Instruction is provided in computer hardware and software design, computer networking systems, and advanced digital design techniques utilizing simulation and computer-based design tools. Applications are found in consumer products, automation systems, computer systems, military electronics, communications, and instrumentation.

EET Technical Specialty Electives

EET 305 Advanced Microprocessors
EET 357 Real-Time Digital Signal Processing
EET 371 Automation, Instrumentation, and Process Control
EET 417 Analog and Digital Circuits
EET 483 Industrial Local Area Networks

Interdisciplinary Technical Electives

Minimum of 12 credit hours with approval of advisor. See the effective plan of study for course suggestions.

Electronic Devices and Systems

The electronic devices and systems track prepares graduates for career opportunities in analog and digital systems, signal processing, and integrated circuit technologies. Students in this track study analog and digital devices and systems, communications, D/A-A/D technologies, computer simulation, and applied analysis of circuits.

EET Technical Specialty Electives

EET 303 Communications I
EET 360 CIM in Electronics Manufacturing
EET 417 Analog and Digital Circuits
EET Electives

Interdisciplinary Technical Electives

Minimum of 12 credit hours with approval of advisor. See the effective plan of study for course suggestions.

Electronics Manufacturing

The electronics manufacturing track prepares graduates for career opportunities with a wide variety of manufacturers of electronic equipment. This fast-growing industry includes companies that manufacture audio, video, medical, computer, and consumer electronic equipment. Students in this track study computer interfacing, automated circuit board assembly, industrial automation, robotics, and process control.

EET Technical Specialty Electives

EET 305 Advanced Microprocessors
EET 360 CIM in Electronics Manufacturing
EET 371 Automation, Instrumentation, and Process Control
EET 417 Analog and Digital Circuits
EET 483 Industrial Local Area Networks

Interdisciplinary Technical Electives

Minimum of 12 credit hours with approval of advisor. See the effective plan of study for course suggestions.

Power Systems

The power track prepares graduates for career opportunities in the areas of power transmission and distribution in both the utility and the industrial setting. Applications include industrial power distribution, fault studies, fuse coordination, system economic analysis, lighting design, transmission losses, and power system protection.

EET Technical Specialty Electives

EET 331 Generation and Transmission of Electrical Power
EET 371 Automation, Instrumentation, and Process Control
EET 381 Electrical Distribution Systems
EET 472 Automatic Control Systems
EET Elective

Interdisciplinary Technical Electives

Minimum of 12 credit hours with approval of advisor. See the effective plan of study for course suggestions.

Advanced Curriculum Program

Electrical engineering technology students interested in pursuing advanced degrees in science, engineering, or professional registration are encouraged to take the ECET department's Advanced Curriculum Program (ACP).¹ This program maximizes a student's undergraduate preparation in the mathematics, science, and engineering science required for advanced studies within the framework of the B.S. degree program. The ACP requirements are listed below, with the four-year technology course substitution shown in parentheses.

Math and Science

MATH 163 Integrated Calculus and Analytic Geometry I (in place of Math 221)
MATH 164 Integrated Calculus and Analytic Geometry II (in place of Math 222)
MATH 261, 262
STAT 511 Statistical Methods I (in place of STAT 301)
PHYS 152 Mechanics (in place of PHYS 218)
PHYS 251 Heat, Electricity, and Optics (PHYS 219)
CHEM C105 Principles of Chemistry I (in place of CHEM C101)

¹For details on a specific program, consult a department advisor.

Interdisciplinary Technical Electives

Minimum of 12 credit hours with approval of advisor.

Minor in Electrical Engineering Technology

The minor in electrical engineering technology (EET) requires completion of a minimum of 22 credit hours of EET courses. Required courses are **EET 102, 105, 152, 154, and 155**. In addition, one course from the following list must be completed: **EET 204, 205, 212, or 302**. At least 12 credit hours of the minor must be completed in residence at IUPUI. Students with credit for EET 116 should consult the ECET department.

Students who wish to complete a minor in electrical engineering technology should consult a department advisor about prerequisite courses or credit for courses taken at other universities.

Minor in Digital Electronics Technology

The minor in Digital Electronics Technology focuses on digital and microprocessor systems. It requires completion of a minimum of 22 credit hours of EET courses.

The minor in Digital Electronics Technology focuses on digital and microprocessor systems. It requires completion of a minimum of 22 credit hours of EET courses. Required courses are **EET 105, 116, 155, 205, and 305**. In addition, one of the following must be completed: **EET 357 or 417**. At least 12 hours of the minor must be completed in residence at IUPUI.

Students who wish to complete a minor in Digital Electronics Technology should consult a department advisor about prerequisite courses or credit for courses taken at other universities.

Department of Mechanical Engineering Technology

Professor Zecher

Associate Professors Bluestein, Rennels (*Chair*),
Tharp

Assistant Professors Acheson, Frettinger-Devor,
Kovach, Workman

The Department of Mechanical Engineering Technology offers three Associate of Science degree programs, three Bachelor of Science degree programs, and five certificate programs. The two-year Associate of Science degree programs offered by the department are in computer graphics technology, computer integrated manufacturing technology, and mechanical engineering technology. The four-year Bachelor of Science degree programs are in computer graphics technology, computer integrated manufacturing technology and mechanical engineering technology. The short-duration certificate programs are in computer graphics, quality control, CAD/CAM, manufacturing systems, and electronics manufacturing.

For more information, contact the Department of Mechanical Engineering Technology at (317) 274-3428, or et_met@iupui.edu.

Associate of Science in Computer Graphics Technology**Interactive Multimedia Developer Track****Freshman Year****First Semester**

CGT 100 Technical Graphics Lectures	1
CGT 111 Design for Visualization and Communication	3
CGT 112 Sketching for Visualization and Communication	3
CPT 106 Using a Personal Computer	3
ENGW131 Elementary Composition I	3
MATH 153 Algebra and Trigonometry I	3
	16

Second Semester

CGT 116 Geometric Model for Visualization and Communication	3
CGT 117 Illustrating for Visualization and Communication	3
MATH 154 Algebra and Trigonometry II	3
COMM R110 Fundamentals of Speech Communication	3
Liberal Arts Elective	3
	15

Sophomore Year**Third Semester**

CGT 211 Raster Imaging for Computer Graphics	3
CGT 251 Principles of Creative Design	3
IET 104 Industrial Organization	3
CPT 140 Programming Constructs Lab	3
Science Elective	3
	15

Fourth Semester

CGT 216 Vector Imaging for Computer Graphics	3
CGT 351 Multimedia Authoring I	3
CSCI N355 Introduction to Virtual Reality	3
PSY B104 Psychology as a Social Science	3
Elective	3
	15

Total 61

Manufacturing Graphics Communication Track**Freshman Year****First Semester**

CGT 100 Technical Graphics Lectures	1
CGT 111 Design for Visualization and Communication	3
CGT 112 Sketching for Visualization and Communication	3
CPT 106 Using a Personal Computer	3
ENG W131 Elementary Composition I	3
MATH 153 Algebra and Trigonometry I	3
	16

Second Semester

CGT 116 Geometric Model for Visualization and Communication	3
CGT 117 Illustrating for Visualization and Communication	3
MATH 154 Algebra and Trigonometry II	3
COMM R110 Fundamentals of Speech Communication	3
Elective	3
	15

Sophomore Year**Third Semester**

CGT 211 Raster Imaging for Computer Graphics	3
CGT 226 Introduction to Constraint-based Modeling	3
IET 104 Industrial organization	3
CPT 140 Programming Constructs Lab	3
Science Elective	3
	15

Fourth Semester

CGT 216 Vector Imaging for Computer Graphics	3
CGT 323 Introduction to 3D Surface Geometry	3
CSCI N355 Introduction to Virtual Reality	3
MET 141 Materials I	3
CPT 288 Using a Database Management System	3
	15

Total 61

Technical Animation and Spatial Graphics Track**Freshman Year****First Semester**

CGT 100 Technical Graphics Lectures	1
CGT 111 Design for Visualization and Communication	3
CGT 112 Sketching for Visualization and Communication	3
CPT 106 Using a Personal Computer	3
ENGW131 Elementary Composition I	3
MATH 153 Algebra and Trigonometry I	3
	16

Second Semester

CGT 116 Geometric Model for Visualization and Communication	3
CGT 117 Illustrating for Visualization and Communication	3
MATH 154 Algebra and Trigonometry II	3
COMM R110 Fundamentals of Speech Communication	3
Liberal Arts Elective	3
	15

Sophomore Year**Third Semester**

CGT 211 Raster Imaging for Computer Graphics	3
CGT 241 Introduction to Animation and Spatial Graphics	3
IET 104 Industrial Organization	3
CPT 140 Programming Constructs Lab	3
Science Elective	3
	15

Fourth Semester

CGT 216 Vector Imaging for Computer Graphics.....	3
CGT 340 Digital Lighting and Rendering.....	3
CSCI N355 Introduction to Virtual Reality.....	3
Liberal Arts Elective	3
Elective	3
	<u>15</u>

Total 61

Bachelor of Science— Computer Graphics Technology

Interactive Multimedia Developer Track

Junior Year**Fifth Semester**

CGT 241 Introduction to Animation and Spatial Graphics	3
CGT 356 Hypermedia Authoring I.....	3
CPT 262 Problem Solving and Programming or CPT 270 Java Programming.....	3
TCM 370 Oral Practicum for Technical Managers	3
Humanities or Social Science Elective	3
	<u>15</u>

Sixth Semester

CGT 346 Digital Video and Audio	3
CGT 456 Hypermedia Authoring II	3
CPT 288 Using a Database Management System.....	3
TCM 220 Technical Report Writing or TCM 340 Correspondence in Business and Industry	3
Technical Elective	3
	<u>15</u>

Senior Year**Seventh Semester**

CGT 411 Contemporary Problems in A.C.G.....	3
CGT 415 Seminar for Senior Design Project	1
CGT 451 Multimedia Authoring II	3
BUS L 203 Commercial Law I	3
Liberal Arts Elective	3
Technical Elective	3
	<u>16</u>

Eighth Semester

CGT 416 Senior Design Project	3
IET 350 Engineering Economy	3
OLS 274 Applied Leadership	3
Humanities or Social Science Elective	3
Elective	3
	<u>15</u>

Total 122

Manufacturing Graphics Communication Track

Junior Year**Fifth Semester**

CGT 241 Introduction to Animation and Spatial Graphics	3
CGT 326 Manufacturing Graphics Standards	3
MET 142 Manufacturing Processes I.....	3
TCM 370 Oral Practicum for Technical Managers ...	3
Liberal Arts Elective	3
	<u>15</u>

Sixth Semester

CGT 251 Principles of Creative Design	3
CGT 341 Animation of Computer Graphics	3
TCM 220 Technical Report Writing or TCM 340 Correspondence In Business and Industry	3
MET 242 Manufacturing Processes II.....	3
Technical Elective	3
	<u>15</u>

Senior Year**Seventh Semester**

CGT 411 Contemporary Problems in A.C.G.	3
CGT 415 Seminar for Senior Design Project	1
CGT 423 Document Production and Management ...	3
BUS L 203 Commercial Law I	3
Liberal Arts Elective	3
Elective	3
	<u>16</u>

Eighth Semester

CGT 416 Senior Design Project	3
IET 350 Engineering Economy	3
Technical Elective	3
Humanities or Social Science Elective	3
Elective	3
	<u>15</u>

Total 122

Technical Animation and Spatial Graphics Track

Junior Year**Fifth Semester**

CGT 251 Principles of Creative Design	3
CGT 341 Animation of Computer Graphics	3
CPT 262 Object Oriented Programming or CPT 270 Java Programming.....	3
TCM 370 Oral Practicum for Technical Managers ...	3
Liberal Arts Elective	3
	<u>15</u>

Sixth Semester

CGT 346 Digital Video and Audio	3
CGT 442 Advanced Computer Animation	3
CPT 288 Using a Database Management System.....	3
TCM 220 Technical Report Writing or TCM 340 Correspondence In Business and Industry	3
Technical Elective	3
	<u>15</u>

Senior Year**Seventh Semester**

CGT 351 Multimedia Authoring I or CGT 356 Hypermedia Authoring I.....	3
CGT 411 Contemporary Problems in A.C.G.	3
CGT 415 Seminar for Senior Design Project	1
BUS L 203 Commercial Law I	3
Liberal Arts Elective	3
Technical Elective	3
	<u>16</u>

Eighth Semester

CGT 416 Senior Design Project	3
IET 350 Engineering Economy	3
SOC 317 Sociology of Work.....	3
Humanities or Social Science Elective	3
Elective	3
	<u>15</u>

Total 122

Associate of Science— Computer Integrated Manufacturing Technology

Accredited by the Technology Accreditation
Commission of the Accreditation Board for
Engineering and Technology, Inc. (ABET), 111
Market Place, Suite 1050, Baltimore, MD 21202,
(410) 347-7700.

Computer integrated manufacturing technology (CIMT) integrates all functions in manufacturing organizations and helps increase productivity, production efficiency, and profitability.

This program prepares students for a high-tech manufacturing environment. Graduates will be ready for positions in computer-aided design, computer numerical control, tool design, CAD/CAM, process planning, and quality control.

Successful completion of the program qualifies students for acceptance into the Bachelor of Science program in computer integrated manufacturing technology. Upon completion, students may also elect to pursue the Bachelor of Science in Mechanical Engineering Technology without loss of credit. Graduates of the A.S. degree program in computer integrated manufacturing technology are eligible for certification as manufacturing technologists. Co-op work programs with industry may be available to students.

Freshman Year**First Semester**

CIMT 100 Introduction to Computer Integrated Manufacturing	1
ENG W131 Elementary Composition I	3
Math 151 Algebra and Trigonometry.....	5
MET 105 Introduction to Engineering Technology...	3
MET 141 Materials I.....	3
CGT 110 Technical Graphics Communication	3
	<u>18</u>

Second Semester

COMM R110 Fundamentals of Speech Communication	3
EET 116 Electrical Circuits	4
IET 150 Quantitative Methods for Technology	3
MET 102 Production Design and Specification	3
MET 142 Manufacturing Processes I	3
	16

Sophomore Year**Third Semester**

CIMT 260 Robotics and Automated Material Handling	3
MET 242 Manufacturing Processes II	3
PHYS 218 General Physics I	4
OLS 252 Human Behavior in Organizations	3
TCM 220 Technical Report Writing	3
	16

Fourth Semester

CIMT 224 Production Control and MRP	3
MET 212 Applications of Engineering Mechanics	4
MET 271 Programming for Numerical Control	3
PHYS 219 General Physics II	4
Technical Elective	3
	17

Total 67

Bachelor of Science— Computer Integrated Manufacturing Technology

Accredited by the Technology Accreditation Commission of the Accreditation Board for Engineering and Technology, Inc. (ABET), 111 Market Place, Suite 1050, Baltimore, MD 21202, (410) 347-7700.

This program prepares graduates to take their new skills in computer integrated manufacturing technology into traditional or fully integrated manufacturing environments. Typical areas of employment are traditional and nontraditional manufacturing processes, advanced manufacturing planning, CAD/CAM, robotics, production control, statistical quality control, process automation, computer integrated manufacturing, and manufacturing management.

IUPUI graduates with an A.S. in Computer Integrated Manufacturing Technology or Mechanical Engineering Technology are eligible for admission to the following two-year add-on curriculum leading to a Bachelor of Science degree.

Junior Year**Fifth Semester**

CPT 140 Programming Constructs Lab	3
EET 302 Introduction to Control Systems	4
IET 104 Industrial Organization	3
IET 350 Engineering Economy	3
MATH 221 Calculus for Technology I	3
	16

Sixth Semester

IET 300 Metrology for Quality Assurance	3
MATH 222 Calculus for Technology II	3
MET 230 Fluid Power	3
MET 240 Basic Foundry	3
TCM 340 Correspondence in Business and Industry	3
	15

Senior Year**Seventh Semester**

CIMT 245 CAD Tool and Fixture Design	3
CIMT 310 Plant Layout and Material Handling	3
IET 454 Statistical Quality Control	3
TCM 370 Oral Practicum for Technical Managers	3
Social Science Elective	3
	15

Eighth Semester

CHEM C101 Elementary Chemistry I	5
CIMT 481 Integration of Manufacturing Systems	3
Social Science Elective	3
Technical Elective	6
	17

Total 130

Associate of Science in Mechanical Engineering Technology

Accredited by the Technology Accreditation Commission of the Accreditation Board for Engineering and Technology, Inc. (ABET), 111 Market Place, Suite 1050, Baltimore, MD 21202, (410) 347-7700.

Mechanical Engineering Technology (MET) concerns the generation, transmission, and utilization of mechanical and fluid energy, as well as the design and production of tools, machines, and their products. This program prepares specialists in developing machines and products, in production processes, in installing and maintaining machines, and in solving repetitive engineering problems.

Graduates of this program are prepared to work as laboratory technicians, engineering aides, plant maintenance supervisors, layout designers, production assistants, and technical personnel. With additional experience, graduates may be promoted to such positions as industrial supervisor, machine and tool designer, technical buyer, production expeditor, and cost estimator.

Graduates of the A.S. degree program in mechanical engineering technology are eligible for certification as associate engineering technologists. In addition, successful completion of this program automatically qualifies a student for acceptance into the program leading to a Bachelor of Science in Mechanical Engineering Technology. Co-op work programs with industry may be available to students.

Freshman Year**First Semester**

MET 105 Introduction to Engineering Technology	3
MET 141 Materials I	3
CGT 110 Technical Graphics Communication	3
MATH 153 Algebra and Trigonometry I	3
ENG W131 Elementary Composition I	3
	15

Second Semester

MET 102 Production Design and Specifications	3
MET 111 Applied Statics	3
MET 142 Manufacturing Processes I	3
TCM 220 Technical Report Writing	3
OLS 252 Human Behavior in Organizations	3
MATH 154 Algebra and Trigonometry II	3
	18

Sophomore Year**Third Semester**

MET 211 Applied Strength of Materials	4
MET 242 Manufacturing Processes II	3
COMM R110 Fundamentals of Speech Communication	3
PHYS 218 General Physics I	4
MATH 221 Calculus for Technology I	3
	17

Fourth Semester

MET 214 Machine Elements	3
MET 220 Heat/Power	3
MET 230 Fluid Power	3
PHYS 219 General Physics II	4
Technical Elective	3
	16

Total 66

Bachelor of Science in Mechanical Engineering Technology

Accredited by the Technology Accreditation Commission of the Accreditation Board for Engineering and Technology, Inc. (ABET), 111 Market Place, Suite 1050, Baltimore, MD 21202, (410) 347-7700.

This program is designed to satisfy a specific need of industry. Building on the A.S. background, selected practical and applied courses give students additional communicative and supervisory skills, interdisciplinary technical understanding, and greater expertise in their major area.

Graduates of the two-year A.S. degree program are eligible for admission to this two-year add-on curriculum leading to a B.S. degree.

Junior Year**Fifth Semester**

MET 213 Dynamics	3
MET 320 Applied Thermodynamics	3
TCM 340 Correspondence in Business and Industry	3
IET 150 Quantitative Methods for Technology	3
MATH 222 Calculus for Technology II	3
	15

Sixth Semester

MET 310 Computer-Aided Machine Design	3
MET 344 Materials II.....	3
MET 350 Applied Fluid Mechanics	3
EET 116 Electrical Circuits	4
CPT 140 Programming Constructs Lab	3
	16

Senior Year**Seventh Semester**

MET 328 CAD/CAM for Mechanical Design	3
MET 384 Instrumentation.....	3
IET 104 Industrial Organization	3
IET 350 Engineering Economy	3
TCM 370 Oral Practicum for Technical Managers.....	3
	15

Eighth Semester

MET 414 Design of Mechanical Projects	3
CHEM C101 Elementary Chemistry I.....	5
Social Science Elective	6
Technical Elective	3
	17

Total 129

Associate of Science in Mechanical Engineering Technology

Advanced Curriculum Track

The advanced degree Mechanical Engineering Technology Program includes classes in engineering, math, and science.

Freshman Year**First Semester**

MET 105 Introduction to Engineering Technology ..	3
MET 141 Materials I.....	3
CGT 110 Technical Graphics Communication	3
MATH 163 Integrated Calculus I.....	5
ENG W131 Elementary Composition.....	3
	17

Second Semester

MET 111 Applied Statics.....	3
TCM 220 Technical Report Writing	3
MET 102 Production Design and Specifications.....	3
MET 142 Manufacturing Processes I	3
MATH 164 Integrated Calculus II	5
	17

Sophomore Year**Third Semester**

MET 211 Applied Strength of Materials	4
COMM R110 Fundamentals of Speech Communication	3
PHYS 152 Mechanics	4
MET 242 Manufacturing Processes II	3
OLS 252 Human Behavior in Organizations	3
	17

Fourth Semester

MET 214 Machine Elements.....	3
PHYS 251 Heat, Electricity, and Optics.....	5
MET 230 Fluid Power	3
MET 220 Heat/Power	3
Technical Elective	3
	17

Total 68

Bachelor of Science in Mechanical Engineering Technology

Advanced Curriculum Track

The advanced degree Mechanical Engineering Technology Program includes classes in engineering, math, and science.

Junior Year**Fifth Semester**

MET 213 Dynamics	3
MET 320 Applied Thermodynamics	3
TCM 340 Correspondence in Business and Industry.....	3
IET 150 Quantitative Methods for Technology.....	3
MATH 261 Multivariate Calculus.....	4
	16

Sixth Semester

MET 310 Computer-Aided Machine Design	3
MET 344 Materials II.....	3
MET 350 Applied Fluid Mechanics	3
EET 116 Electrical Circuits	4
CPT 140 Programming Constructs Lab	3
	16

Senior Year**Seventh Semester**

MET 328 CAD/CAM for Mechanical Design	3
MET 384 Instrumentation.....	3
IET 104 Industrial Organization	3
IET 350 Engineering Economics.....	3
TCM 370 Oral Practicum for Technical Managers.....	3
	15

Eighth Semester

MET 414 Design of Mechanical Projects	3
CHEM C101 Elementary Chemistry I.....	5
Technical Elective	3
Social Science Elective	3
Social Science Elective	3
	17

Total 132

Computer Graphics Technology Certificate Program

This program places emphasis on learning industry-standard graphics software programs and sketching as a means of communication. Topics include computer literacy, electronic publishing, computer-aided drafting, raster and vector-based drawing, parametric modeling, multimedia, and animation. Upon successful completion of the program, the student may continue working toward the Associate of Science in Computer Graphics Technology.

CGT 111 Design for Visualization and Communication	3
CGT 112 Sketching for Visualization and Communication	3
CGT 116 Geometric Modeling for Visualization and Communication	3
CGT 117 Illustration for Visualization and Communication	3
CGT 211 Raster Imaging for Computer Graphics	3
CGT 351 Multimedia Authoring I.....	3

Select one group from the following:

CGT 226 Introduction to Constraint-based Modeling ..	3
and CGT 326 Manufacturing Graphics Standards	3

or

CGT 241 Introduction to Animation and Spatial Graphics	3
and CGT 341 Animation of Computer Graphics	3

or

CGT 251 Principles of Interactive and Dynamic Design	3
and CGT 356 Hypermedia Authoring I	3
	24

Quality Control Certificate Program

Developed in conjunction with the Northeast Indiana Section of the American Society for Quality Control, this certificate program provides training and instruction in the use of measuring instruments and techniques of statistical quality control. The course work provides a basis for putting these techniques to work in the quality control system of an industrial organization. The program includes an investigation of the concept of quality control and the impact of quality costs, determination of customer needs, and follow-up on field performance and feedback. A certificate will be presented to those who successfully complete all course work.

Curriculum

The courses are listed in the order in which they should be taken.

MATH 151 or MATH 153/154 Algebra and Trigonometry	5
IET 204 Maintaining Quality or	
IET 300 Metrology for Quality Assurance	3
IET 150 Quantitative Methods for Technology	3
IET 364 Total Quality Control	3
IET 374 Nondestructive Testing or	
IET 474 Quality Improvement of Products and Processes	3
IET 454 Statistical Quality Control	3
	20

CAD/CAM Certificate Program

This certificate program provides a quick overview of modern manufacturing, with special emphasis on CAD/CAM.

A total of 21 credit hours, with a cumulative grade point average of 2.0 on a 4.0 scale, is required to receive the certificate.

All students must complete the following courses:

CGT 116 Geometric Modeling for Visualization and Communication	3
MATH 151 or MATH 153/154 Algebra and Trigonometry	5
MET 242 Manufacturing Processes II	3
CGT 226 Introduction to Constraint-based Modeling	3
MET 271 Programming for Numerical Control	3
MET 328 CAD/CAM for Mechanical Design	3

Students must then choose one of the following electives:

MET 102 Production Design and Specifications	3
CGT 323 Introduction to 3D Surface Geometry	3
CGT 326 Manufacturing Graphics Standards	3
	23

Manufacturing Systems Certificate Program

This certificate program provides an overview of the manufacturing system and the control of its various components. The program can greatly benefit individuals without a technical background in adjusting to the manufacturing environment. A total of 21 credit hours and a cumulative grade point average of 2.0 on a 4.0 scale are required to receive the certificate.

All students must complete the following courses:

MATH 151 or MATH 153/154 Algebra and Trigonometry	5
CIMT 260 Robotics and Automated Material Handling	3
CIMT 224 Production Planning and Control	3
IET 104 Industrial Organization	3
IET 364 Total Quality Control	3
CGT 110 Technical Graphics Communication	3

Students must then choose one of the following electives:

MET 242 Manufacturing Processes II	3
CIMT 310 Plant Layout and Material Handling	3
IET 350 Engineering Economy	3
	23

Electronics Manufacturing Certificate

A certificate in electronics manufacturing will allow students to train and prepare for a career in the fast-growing electronics industry. Students will study a

wide range of topics in both electronics and manufacturing, including special processes used by today's industry, industrial organization, and quality techniques. For students who decide to continue their education, all the courses for the certificate will apply toward an associate degree in computer integrated manufacturing technology, electronics manufacturing option.

A total of 22 or 23 credit hours are required to receive the certificate.

All students must complete the following courses:

MATH 151 or MATH 153/154 Algebra and Trigonometry	5
IET 150 Quantitative Methods for Technology	3
IET 240 Quality Techniques for Electronics Manufacturing	3
EET M200 Electronics Manufacturing II	4
EET M290 Projects in Electronics Manufacturing	4

Students must then choose from one of the following electives:

EET 105 Digital Fundamentals I	3
EET 116 Electrical Circuits	4
EET M150 Electronics Manufacturing I	3
IET 104 Industrial Organization	3
MET 344 Materials II	3
	22/23

Department of Organizational Leadership and Supervision (OLS)

Associate Professor Goodwin (*Chair*)

Assistant Professors Feldhaus, Hundley

Lecturer Wolter

This program offers a broad-based education for those who desire leadership roles in business, government, or industry. A guiding vision of the department is to close the gap between theory and practice.

Associate of Science (A.S.) and Bachelor of Science (B.S.) degrees are available. The specialized Certificate in Human Resource Management and Certificate in International Leadership are also available.

The degree programs are flexible to meet the needs of both traditional and nontraditional students. As part of a relevant and practical discipline, our programs integrate a series of core courses with a choice of concentration tracks. The core courses offer a strong foundation in leadership, communication and general education, mathematics, and science. Concentration tracks allow students to develop their interests and talents within a particular technical field. Students will select courses from the following technical concentration areas:

Mechanical Engineering Technology (MET)
Computer Integrated Manufacturing Technology (CIMT)

Electrical Engineering Technology (ECET)
Construction Technology (CNT)
Computer Technology (CPT)
Interdisciplinary (INT)
Allied Health
Business
Nursing

Course work for the A.S. degree provides a solid foundation for students who wish to enhance their employment opportunities or pursue more advanced degrees. The work is balanced enough to include the study of mathematics and science, as well as study of technology related to the student's intended career, to general education, and to supervisory leadership. Students develop abilities that can help them become effective contributors early in their employment.

The B.S. degree increases the range and depth of the student's education in technical and leadership areas. Graduates are prepared to assume leadership positions in a variety of organizational functions as well as to pursue graduate degrees. The degree requirements are arranged in seven areas of study: leadership and supervision, mathematics and science, communication, behavioral science, social science and humanities, related technology, and electives.

Students working toward their B.S. degrees may earn certificates in specialty areas in technology and in OLS. For example, by taking a combination of organizational leadership and supervision (OLS) courses, students may earn a certificate in **Human Resource Management**. Academic advisors will assist the student in selecting courses needed to meet the requirements in the concentration area.

The Department of Organizational Leadership and Supervision agrees to accept credit hours earned at Ivy Tech in its Associate in Science and Associate in Applied Science programs, and where applicable these credit hours will be distributed to satisfy the requirements for the Associate of Science and Bachelor of Science degree programs in OLS. All courses that have been identified for transfer between campuses/programs under separate agreements will not be affected.

For more information, call (317) 278-0277 or e-mail et_ols@iupui.edu.

Associate of Science in Organizational Leadership and Supervision

The A.S. degree in Organizational Leadership and Supervision (OLS) requires a total of 61 credit hours. Program requirements for graduation are as follows:

- 22 credit hours in OLS—**OLS 100, 252, 263, 274, 327, 331, 378, 390** are required.
- Up to 18 credit hours in an applied technology that complements OLS and directly relates to specific career interests. At least 3 credit hours must demonstrate computer competency. 12 credit hours must be in a single department or program such as CNT, CPT, ECET, MET, business, nursing, allied health, etc. These courses must be related to a minor, or a certificate, or reflect some logical combination of courses. Note: Students

must have the set of courses they plan to apply to the related technology area pre-approved by an OLS academic counselor.

3. 3 credit hours in behavioral or social sciences, selected from courses in anthropology, psychology, sociology, economics, and/or geography (see an OLS advisor for approved geography courses with a social science dimension).
4. 9 credit hours in communications—**ENG W131**, **COMM R110**, and **TCM 220**.
5. 6 credit hours in mathematical skills, including **MATH 153–154** or **MATH 118–119** or equivalent. If MATH 151 or an equivalent or higher-level 5-hour course is substituted, one additional credit hour approved by an OLS advisor must be earned.
6. 3 credit hours in statistics such as **IET 150**, **STAT 301**, etc.

Bachelor of Science in Organizational Leadership and Supervision

The B.S. degree in Organizational Leadership and Supervision requires a total of 124 credit hours. Of the 43 credit hours required in OLS, 28 must result from taking **OLS 100**, **252**, **263**, **274**, **327**, **331**, **378**, **390**, **410**, and **490**. The balance of the requirements for graduation are as follows:

1. 15 additional credit hours of OLS course work beyond the required courses.
2. 24 credit hours in an applied technology competency that complements OLS and directly relates to specific career interests. 18 credit hours must be in a single department or program such as CNT, CPT, ECET, MET, business, nursing, allied health, etc., and at least 3 credits must demonstrate computer competency. These courses must be related to a second degree, a minor, a certificate, or reflect some logical combination of courses. Students will be directed to the appropriate advisor for a certificate, or minor; and the faculty in that department will counsel the student for those required courses. **Note:** Students must have the set of courses they plan to apply to the related technology area pre-approved by an OLS academic advisor.
3. 6 credit hours in behavioral or social sciences, selected from courses in anthropology, psychology, sociology, economics and/or geography (see an OLS advisor for approved geography courses with a social science dimension).
4. 18 credit hours in communication, including **COMM R110**, **ENG W131**, and **TCM 220**. The balance must be composed of speaking and writing courses.
5. 4 credit hours in a laboratory science elective. An approved 4 or 5 credit hour course in one of the basic sciences (3 hours of lecture and at least one hour of lab).
6. 6 credit hours in mathematical applications, which must include **IET 350** and an introductory

course in statistics. The introductory course in statistics must be selected after consultation with an OLS advisor.

7. 6 credit hours in mathematical skills, including **MATH 153–154** or **MATH 118–119** or equivalent. If MATH 151 or an equivalent or higher-level 5-credit hour course is substituted, one additional credit hour approved by an OLS advisor must be earned.
8. 6 credit hours in humanities, selected from courses in art, history, literature, music, religion, and/or theater.
9. 11 credit hours of electives from any department. Choose courses that “round out” your degree and expose you to different disciplines and ways of thinking. You should use these credits to improve your marketability in the workplace or to fill master’s degree prerequisites. Prior approval by an OLS advisor is strongly recommended.

Human Resource Management Certificate Program

This certificate program is co-sponsored by the Organizational Leadership and Supervision Department and the Human Resource Association of Central Indiana. The program aims to provide a thorough explanation of the human resource department’s role in the modern organization. The focus of the courses will be practical, emphasizing the application of vital concepts.

Students are required to successfully complete 21 credit hours (seven courses) to earn the certificate.

Required Core Courses

Students must successfully complete all seven of the following courses (21 credit hours):

OLS 331 Occupational Safety and Health.....	3
OLS 368 Personnel Law.....	3
OLS 375 Training Methods	3
OLS 378 Labor Relations	3
OLS 383 Human Resource Management ¹	3
OLS 476 Compensation Planning and Management	3
OLS 479 Staffing Organizations	3

¹OLS 383 Must be taken as a prerequisite or corequisite to any other certificate course.

To enroll in this program, students must be formally admitted by the Office of Admissions on the IUPUI campus. Credit may be given for applicable courses taken at other colleges or universities. Students may apply these courses toward degree programs in the Organizational Leadership and Supervision Program. Additional information may be obtained from the Organizational Leadership and Supervision Program, 799 W. Michigan Street, IUPUI, Indianapolis, IN 46202; telephone (317) 278-0277.

Certificate in International Leadership

This interdisciplinary certificate is appropriate for individuals who may have international supervisory leadership responsibilities and/or work with individuals from different countries. It is also appropriate for those students who wish to acquire knowledge, skills, and abilities to prepare for an overseas work assignment. A total of 27 credit hours is required for the certificate; of those 27 credits, 15 must be in core requirements (section I), at least 3 but not more than 7 credits from international experience and/or additional foreign language courses (section II), and the remainder from elective courses (section III). Transfer courses will be accepted, but at least half of the credits must be earned on the IUPUI campus. Any prerequisite courses may add additional credit hours, but those credits will *not* be counted toward the 27 credits required for the certificate.

Section I: Required Core Courses (15 credit hours)

- OLS 327** Leadership for a Global Work Force (P: ENG W131, COM R110)
OLS 328 Principles of International Management (P: OLS 327, MA 153 or equivalent)
COMM C482 Intercultural Communication (P: C180 or instructor’s consent)
LANG Six hours of a *single* foreign language (not American Sign Language)

Section II: International Experience and/or Additional Language Electives (3 to 7 total credit hours)

- INTERN** Up to 3 credit hours from IUPUI-approved overseas internships
STUDY Up to 6 credit hours from an IUPUI-approved study-abroad program
LANG Up to 4 *additional* hours of the foreign language chosen in the core

Section III: Related International Electives (5 to 9 total credit hours)

As students develop a certificate plan of study, they must accumulate the balance of their elective credits from one of the following four focus areas. The set chosen should relate to the student’s individual leadership interests, and at least three credits must be at a 300 or higher level.

1. Business and economics focus
2. Political focus
3. Social and cultural focus
4. Area studies focus

To enroll in this certificate program, students must be formally admitted by the Office of Admissions on the IUPUI campus. Credit may be given for applicable courses taken at other colleges or universities. Students may apply these courses toward degree programs in the Organizational Leadership and Supervision Program (OLS). Additional information may be obtained from the Organizational Leadership and Supervision Program (OLS), 799 West Michigan Street, Indianapolis, IN 46202; telephone (317) 278-0277.

Technical Communications Program

Associate Professor Wilkins

Assistant Professor Hovde

Adjunct Assistant Professor Fitzpatrick

The Technical Communications Program offers specialized courses for students in engineering and technology programs that help them prepare for the writing and speaking tasks they will perform as part of their professional work. These courses build on students' previous experiences in written and oral communication and help them learn to present technical information effectively for audiences in organizational settings. In addition, the program works with other schools and local industry to prepare students for careers as technical communicators.

Certificate in Technical Communication

The Technical Communication Certificate is offered by the Purdue School of Engineering and Technology in cooperation with the Department of English, the Department of Communication Studies, and the Hoosier Chapter of the Society for Technical Communication. Any student formally admitted to the university may be a candidate for the certificate. Students who earn the certificate will have demonstrated they have the core competencies necessary for entry-level positions as technical communicators: the ability to gather and transform technical information for a variety of audiences and the ability to design, develop, and edit effective documents using rhetorical principles and current technology.

Technical Specialty

A technical or scientific major or minor or technical interest demonstrated by 9 credit hours of courses, including CPT 106 or 115 or an equivalent introductory computer course.

Required Courses: 8/9 credits

TCM 220, 320, or 360—an introductory technical writing course

TCM 350 Visual Elements of Technical Documents

ENG W365 Theories and Practices of Editing

Selected Courses: 9/10 credits

ENG G205 Introduction to the English Language

ENG W315 Composing Computer-Delivered Text

TCM 370, COMM C401, or COMM C402, a course in oral presentation of technical information

COMM R320 Advanced Public Communication or **COMM R321** Persuasion

COMM C228 Discussion and Group Methods or

COMM C380 Organizational Communication

OLS 374 Supervisory Management, **OLS 375** Training Methods, or **OLS 385** Leadership Strategies for Quality and Productivity

JOUR J463/J563 Desktop Publishing or **JOUR J390** Corporate Publications

IET 364 Total Quality Control

TCM 399 Issues in Technical Communication

A course in visual communication

Internship

Other courses may be approved by the TCM coordinator based on a student's particular interests and career objectives.

Portfolio

In order to obtain a Certificate in Technical Communication, a student must submit a portfolio containing several samples of written work, each accompanied by a description of the document's purpose and intended audience, for review by representatives of the Hoosier Chapter of the Society for Technical Communication.

Technology Course Descriptions

Key to Course Descriptions

The courses listed in this section will, for the most part, be offered during the 2002-2004 academic years. Additional information about course schedules may be obtained from the specific departments in the school. Courses are grouped under the appropriate program subject abbreviation. Course descriptions contain the following information, with some exceptions, in this order: course number, course title; number of credit hours (in parentheses); number of lecture hours per week; number of laboratory hours per week; number of recitation hours per week (group discussion and problem solving); and prerequisites (P) and/or corequisites (C), followed by a course description. For example, under Civil Engineering Technology (CET), a course description reads:

CET 104 Fundamentals of Surveying (3 cr.) Class 2, Lab 3. P: MATH 154 or equivalent. Measurement of vertical and horizontal distances and angles using the tape, level, transit, theodolite, and EDM. Computations of grades, traverses, areas, and curves.

This listing indicates that the course number is CET 104 with the title "Fundamentals of Surveying." It's worth 3 credit hours. The class meets 2 hours a week for the lecture and 3 hours a week for the laboratory. The required prerequisite is MATH 154 or an equivalent course. A brief course description then follows.

The numbering system for courses reflects the following levels:

100-299	Courses normally scheduled for freshmen and sophomores
300-499	Courses normally scheduled for juniors and seniors
500-599	Dual-level courses that may be scheduled for seniors and for graduate students for graduate credits

Architectural Technology (ART)

ART 116 Construction Graphics (3 cr.) Class 1, Lab 6. P: High school geometry or equivalent. Introduction to drafting fundamentals, with emphasis on architectural and civil engineering topics. Use of instruments, lettering, orthographic projections, auxiliary views, intersections, and perspectives. Students may not receive credit for both ART 116 and ART 117.

ART 117 Construction Drafting and CAD (3 cr.) Class 1, Lab 4. P: High school geometry or equivalent. Introduction to drafting and CAD fundamentals, with emphasis on architectural and civil engineering topics. Development of basic drafting skills, using orthographic projections, auxiliary views, pictorial drawings, and drafting conventions. Students may not receive credit for both ART 116 and ART 117.

ART 120 Architectural Presentation (3 cr.) Class 1, Lab 4. Techniques for production of presentation drawings for a client. Three-dimensional drafting techniques including different perspective drawing techniques and other 3-D drafting methods are covered. The course also includes rendering; shades and shadows; and coloring using pen, pencil, and color markers. Focus is on learning presentation methods rather than learning rendering techniques.

ART 155 Residential Construction (3 cr.) Class 2, Lab 3. P: ART 165 or equivalent; ART 117 or equivalent; and CNT 105. Wood frame construction through a semester project requiring planning, preliminary, and working drawings. Outside lab assignments are required.

ART 165 Building Systems and Materials (3 cr.) Class 2, Lab 3. Study of the structural systems used in structures. The study of properties, uses, and methods of incorporation of various construction materials in modern construction.

ART 200 Fundamentals of CAD for Construction (3 cr.) Class 2, Lab 3. An introduction to computer-aided design (CAD) hardware and software with emphasis on two-dimensional drawings and design. Assignments focus on practical architectural and civil engineering applications for construction.

ART 210 History of Architecture I (3 cr.) Class 3. A survey of Western architecture from ancient times to the present day. Social, technological, and cultural influences on architectural styles are emphasized.

ART 220 Advanced Architectural Presentation (3 cr.) Class 1, Lab 6. P: ART 120 or consent of instructor. Advanced subjects in architectural presentation.

ART 222 Commercial Construction (3 cr.) Class 2, Lab 3. P: ART 155. Preparation of preliminary and working drawings for an intermediate-sized commercial building. At the instructor's option, the work may be done in groups.

ART 284 Mechanical Systems for Buildings (3 cr.) Class 3. P: MATH 154 or equivalent. Plumbing, heating, ventilation, air-conditioning, and other mechanical systems for buildings, including calculations and design for such systems.

ART 285 Electrical Systems for Buildings (2 cr.) Class 2. P: MATH 153 or equivalent. A survey of electrical and lighting system requirements for residential and commercial buildings. Lighting fundamentals and design, electric circuits, power requirements, and wiring layout used for building construction systems.

ART 299 Architectural Technology (1-4 cr.) Hours and subject matter to be arranged with staff. Course may be repeated for up to 9 credit hours.

ART 310 History of Architecture II (3 cr.) Class 3. Western architecture, structure, and building technology of the eighteenth, nineteenth, and twentieth centuries.

ART 350 Energy Conservation in Buildings (3 cr.) Class 3. P: ART 284. Heat loss and heat gain calculations in buildings using computers. Principles of energy-conserving building construction and insulation methods as to details and materials. Life-cycle costing of construction alternatives.

ART 476 Writing Construction Documents (3 cr.) Class 3. P: CNT 347. Purpose and intent of specifications for specific jobs, including development of the general conditions, adaptation of selected provisions from standard specifications, and delineation of special supplemental conditions.

ART 490 Senior Project (1-6 cr.) Final project aimed at combining the skills and knowledge gained from the various areas of study. The student will be expected to report graphically, orally, and in written form on a final project approved by the advisor. Presentation will be made to a representative board of the faculty determined by the advisor.

ART 499 Architectural Technology (1-4 cr.) Hours, subject matter, and credit to be arranged with staff. Course may be repeated for up to 9 credit hours.

Biomedical Electronics Technology (BMET)

BMET 105 Introduction to Biomedical Electronics Technology (1 cr.) Class 1. P: None. Students will dive into the field without getting wet. To explore BMET, participants will monitor BIOMEDTALK, an e-mail chat group used by Biomedical Electronics Technicians as a forum for discussion of equipment-related issues and concerns. Students will discuss and research posted topics. Samples of topics posted in the past include hospital cell phone use and medical equipment interference from children's toys and games. Included in this course will be a visit to area hospital BMETs.

BMET 220 Applied Human Biology for BMET (3 cr.) Class 3. This course presents the human biology, anatomy, physiology, and medical terminology essential for biomedical equipment technicians and the devices involved in patient care. Focus is on the vocabulary necessary for effective medical communication skills in the hospital environment as part of the health care team.

BMET 240 Introduction to Medical Electronics (3 cr.) Class 3. C: EET 154. An overview of human anatomy and physiology and introduction to physiological measurements, including

cardiovascular, pulmonary, and applicable pressure and temperature measurements. Operation of common biomedical electronic equipment is demonstrated. On-site hospital visits expose students to modern monitoring and intensive-care biomedical equipment.

BMET 290 Biomedical Equipment Technician Practicum (4 cr.) Class 4. P or C: BMET 320. Practice working in industry as a BMET. Students work on a variety of medical equipment and job tasks. Some training in the form of in-service and orientation programs. An employer evaluation, student report, and a minimum of 180 work hours are required.

BMET 320 Biomedical Electronic Systems I (4 cr.) Class 3, Lab 3. P: BMET 240. C: EET 204. Hands-on study of medical instrumentation. The origins of biopotentials, electrocardiograms, and electrical shock; study of patient-care equipment, including the electrocardiograph. A logical approach to troubleshooting, including unit-level troubleshooting.

BMET 330 Electronics for the Clinical Laboratory Equipment Technician (3 cr.) Class 3. P: EET 116 or equivalent (fundamental understanding of active, passive, and digital devices). This course provides a study of devices, circuits, computers, test equipment, transducers, and sensors which are specific to the clinical laboratory. This course includes the analysis of applied electronics circuits incorporated in this environment.

BMET 360 Applied Human Biology for the Clinical Laboratory (3 cr.) Class 3. P: BMET 330 or consent of instructor. This course provides an overview of human structure, function, and chemistry as they relate to the clinical laboratory environment. The class emphasizes the study of bodily fluids and commonly analyzed tissues under both normal and disease conditions. Fluids studied include blood components, urine, spinal fluid, and joint fluid. This class will also discuss medical terminology as well as the medical communication skills required to interface with hospital staff.

BMET 370 Safety and Regulations in the Clinical Laboratory (3 cr.) Class 3. P: BMET 360 or consent of instructor. This course studies the codes and standards of the College of American Pathologists (CAP), the Clinical Laboratory Improvement Amendment (CLIA), and other governing bodies. In addition, this course investigates the prevention and control of chemical, electrical, biological, and radiological human hazards.

BMET 380 Clinical Laboratory Equipment (3 cr.) Class 3. P: BMET 370 or consent of instructor. This course focuses on the theory of clinical laboratory instrumentation and the function, utilization, and problem-solving skills necessary for the support of laboratory equipment. Instruction emphasizes devices used for hematology, clinical chemistry, and microbiology. These devices include centrifuges, blood cell analyzers, immunochemistry analyzers, coagulation analyzers, and blood gas and co-oximetry machines. The course also presents fundamental pneumatics as a basis for clinical lab equipment.

Civil Engineering Technology (CET)

CET 104 Fundamentals of Surveying (3 cr.) Class 2, Lab 3. P or C: MATH 154 or equivalent. Fundamental concepts and practical applications related to measurement of vertical and horizontal distances and angles using the tape, level, transit, theodolite, and EDM (total stations, electronic workbooks, laser levels, etc.) Computations of grades, traverses, areas, and curves. Basic concepts of topography and its uses. Identification of contours and drawing of topographical maps.

CET 160 Statics (3 cr.) Class 3. P: MATH 154 or equivalent. Forces acting on bodies at rest, including coplanar, concurrent, and nonconcurrent systems. Includes centroids, moments of inertia, and friction.

CET 204 Land Survey Systems (3 cr.) Class 3. P: MATH 153. Development, history, elements of the U.S. Public Land System. Tiffin's Instructions. Methodology for the subdivision of sections, retracement survey concepts, related problems and solutions. Types of land descriptions and their plots. State Plane Coordinate System and its use in surveys. Records research of land. Modern land information system, implementation of such a system.

CET 210 Surveying Computations (3 cr.) Class 2, Lab 2. P: CET 104. Accuracy, precision, and error theory pertaining to surveying calculations. Includes manual lab sessions, as well as software use, if appropriate, related to calculations involving alignment, grade, route surveying, construction surveying, building layouts, areas, and earthwork.

CET 231 Soils Testing (3 cr.) Class 2, Lab 3. P: CET 160. P or C: TCM 220. The measurement of the engineering properties of soils in the laboratory and field. Identification and classification of soils by the Unified Soil Classification System and the American Association of State Highway and Transportation Officials System.

CET 260 Strength of Materials (3 cr.) Class 3. P: CET 160. C: CET 267. Stress-strain relationships of engineering materials; composite analysis; shear forces and bending moments in beams; analysis and design of steel and wood beams and columns, beam deflections, and statistically indeterminate beam analysis.

CET 267 Materials Testing (2 cr.) Class 1, Lab 3. C: CET 260. P or C: TCM 220. Laboratory and field testing of structural materials to determine their mechanical properties and behavior under load. Materials included are steel, aluminum, concrete, wood, and asphalt.

CET 275 Applied Civil Engineering Drafting (3 cr.) Class 2, Lab 3. P: ART 116 or ART 117 and ART 165 or ART 162, and ART 172, and CNT 105. Preparation of structural construction drawings for buildings, bridges, roads, and topographic drawings.

CET 299 Civil Engineering Technology (1-4 cr.) Hours and subject matter to be arranged with staff. Course may be repeated for up to 9 credit hours.

CET 302 Geodesy (3 cr.) Class 3. P: CET 104. This course is designed to provide an overview of geodesy and includes the following: a brief history of geodesy, the geometry of the ellipsoid, the two-dimensional

ellipse, the construction of an ellipse, the three-dimensional ellipsoid, geodetic transformations, geodetic datums, reduction of field observations to the ellipsoid, the geoid, and orthometric heights and leveling.

CET 304 Legal Descriptions for Surveyors (3 cr.) Class 3. P: CET 104 or equivalent. This course provides a foundation in basics necessary to write legal descriptions. Includes a brief history of surveying framework, supportive information, descriptive fundamentals, determining controls, general and water boundaries, interpretations, monuments, streets, occupations versus titles, easements, right-of-ways, and special shaped/section land. Participants will experience land description writing exercises.

CET 305 Control Surveying (3 cr.) Class 3. P: CET 104 and CET 210. Theoretical fundamental and practical applications of establishing survey control networks including open and closed traverses, route surveying networks, using GPS and EDM in control surveying, differential leveling and industry surveying standards.

CET 307 Property Surveying (3 cr.) Class 3. P: CET 204, CET 210, and CET 304. The land surveyor in the context of real estate development/transfer. The rules and classifications of evidence and their use. Transfers of real estate and role of title companies. The process for a legal survey in Indiana. Retracement survey of a subdivision, evidence gathered and optimum resolution for the boundaries on such surveys. Plats and reports.

CET 308 GPS and Geodesy for Surveyors (3 cr.) Class 2, Lab 2. P: MATH 221, CET 104, and CET 210. Practical application of GPS to land surveying, use of the GPS signal and receivers. Planning a GPS survey, conducting the observations, and analyzing GPS data processing procedures. The course also includes overview of geodesy, the geometry of the multi-dimensional ellipse and ellipsoids, geodetic transformations and datums and the Geodetic Reference System.

CET 312 Construction and Route Surveying (3 cr.) Class 2, Lab 3. P: CET 104. Field procedures for construction and route surveying, including highway, street, sewer, and bridge layout. Route surveying including vertical and horizontal curves, curve design, survey for streets and subdivisions, earthwork, and profiles/sections using both theodolite and electronic distance measuring (EDM) equipment. Computation of errors and coordinates and use of appropriate software.

CET 350 Structural Design for Construction (3 cr.) Class 3. P: CET 260. Overview of structural design for reinforced concrete, steel, and wood structures. Allowable and ultimate strength design methodologies are covered, including load factor design and load and resistance factor design. Structural design codes and design-construction interdependence in professional practice are emphasized.

CET 368 Experimental Stress Analysis Lab (2 cr.) Class 1, Lab 3. P: CET 267 and MATH 221. Determining the location, direction, and magnitude of stress and strain in full-size and scale-size structural systems and components.

CET 382 Steel Structures Design (3 cr.) Class 3. P: CET 260 and CET 267. Fundamentals of structural steel design, with particular attention to the design of beams, columns, and their connections.

CET 387 Reinforced Concrete Design (3 cr.) Class 3. P: CET 260 and CET 267. The fundamentals of reinforced concrete design and analysis, including beams, slabs, columns, footings, and retaining structures. Introduction to precast construction and prestressed concrete.

CET 402 Surveying Law (3 cr.) Class 3. P: CET 104 and CET 304 or equivalent. Surveying law defines the role and duties of a surveyor; rights and interests in land; the ownership and transfer of real property, land descriptions, statute law and common laws; sequential and simultaneous conveyances; easements and reversions; riparian rights; the public land system; and Rule 13.

CET 430 Soils and Foundations (3 cr.) Class 2, Lab 3. P: CET 260 and junior standing. Measurement of technical properties of soils in situ or in the laboratory, classification for engineering and construction purposes. Soil exploration, subsurface investigation, and soil reports; concept of bearing capacity; shallow and deep foundations and retaining wall, their analysis, and construction aspects. Soil-structure interaction in terms of construction, settlement, and structural service issues.

CET 452 Hydraulics and Drainage (3 cr.) Class 3. P: CET 260 and senior standing. Basic hydrostatics; fundamental concepts of fluid flow in pipes and open channels; methods of estimating storm-water runoff; sizing of culverts, storm and sanitary sewers, and open channels.

CET 484 Wood, Timber, and Formwork Design (3 cr.) Class 3. P: CET 260 and CET 267. Fundamentals of wood and timber design, including beams, columns, connections, and laminated structural members. The design of formwork for concrete structures, including walls, beams, columns, slabs, and forms for special shapes.

CET 490 Senior Project (1-6 cr.) Final project aimed at combining the skills and knowledge gained from the various areas of study. The student will be expected to report graphically, orally, and in written form on a final project approved by the advisor. Presentation will be made to a representative board of the faculty determined by the advisor.

CET 499 Civil Engineering Technology (1-4 cr.) Hours, subject matter, and credit to be arranged with staff. Course may be repeated for up to 9 credit hours.

Computer Graphics Technology (CGT)

CGT 100 Technical Graphics Lectures (1 cr.) Class 1. An introduction to the academic and professional opportunities available in the field of technical graphics. Lecture presentations cover a wide range of material by instructors from the technical graphics program and guests. Attendance at all lectures is important, and major assignments include writing a resume and professional goals paper, readings from course textbooks, development of a personal Web page, and weekly quizzes and lectures.

CGT 102 Graphic PC Basics (3 cr.) Class 2, Lab 4. This introductory course gives students hands-on experience in the graphics enhancement capabilities of standard productivity software. Students will learn and apply specialized graphics options that are often overlooked in standard Windows® office software. Emphasis will be on the efficient exploitation of the Windows® graphical user interface (GUI), the graphics capabilities of common productivity software, acquiring and linking graphical elements to documents, graphic file formats, and the implications of producing graphics-intensive documents.

CGT 110 Technical Graphics Communication (3 cr.) Class 2, Lab 2. This course is an introduction to the graphic language used to communicate design ideas using CAD. Topics include sketching, multiview drawings, auxiliary views, pictorial views, working drawings, dimensioning practices, and section views.

CGT 111 Design for Visualization and Communication (3 cr.) Class 2, Lab 2. An introductory design course for computer graphics majors. Students develop an understanding of the basic design elements and principles, composition and typography through exercises and projects. The focus is on visual thinking, exploring the relationship between type and image, and developing multiple solutions to a given problem.

CGT 112 Sketching for Visualization and Communication (3 cr.) Class 2, Lab 2. This course applies fundamental computer graphics concepts of visualization, communication, and creativity within a sketching metaphor. Exercises and projects in graphic theory, problem solving, and sketching skill development provide students with activities that focus on further development within the discipline. A variety of sketching techniques are used to gather critical information and transform data into effective communication instruments.

CGT 116 Geometric Modeling for Visualization and Communication (3 cr.) Class 2, Lab 2. Core introductory applied computer graphics course that provides entry-level experiences in geometric modeling. Students develop geometric analysis and modeling construction techniques and processes to produce accurate computer models for graphic visualization and communication. Assignments apply graphics communication principles to problems involving visualization, coordinate systems, geometric constructions, projection theory, and database practices. (AutoCAD® software is used in this course.)

CGT 117 Illustrating for Visualization and Communication (3 cr.) Class 2, Lab 2. This foundation course stresses the use of pictorial illustration for visualization and communication. Various projection systems are introduced with discussion focusing on the appropriate use of view and system utilized to accentuate and provide clear communication. A variety of digital tools are used to construct, extract, and render pictorial views using vector and raster tools. (Illustrator® or Freehand® software is used in this course.)

CGT 120 Electrical and Electronic Drafting (2 cr.) Class 1, Lab 2. P: EET 154. A basic course in electrical and electronic drafting, utilizing multiview and isometric drawing, sectioning, and dimensioning practices. Documentation of design through schematic diagrams, wiring diagrams, and printed circuit board layout. Application of graphics standards for electronic, power, and industrial control circuitry.

CGT 155 Graphical Communication and Spatial Analysis (2 cr.) Class 1, Lab 2. The principles of engineering graphics are applied to the visualization, communication, and graphical analysis of problems. Included is the utilization of sketching and computer-aided design to create and analyze computer-generated geometric models. Manipulation of coordinate systems, methods for generating selected views, graphic and data base standards, and engineering drawing interpretation will be covered.

CGT 211 Raster Imaging for Computer Graphics (3 cr.) Class 2, Lab 2. P: TG 116 and TG 117. Digital images are produced using a variety of computer technologies. Advanced color theory, surface rendering, and light control are emphasized in relation to technical illustration, hardware characteristics, and software capabilities. (Photoshop[®], software is used in this course.)

CGT 216 Vector Imaging for Computer Graphics (3 cr.) Class 2, Lab 2. P: TG 211. Full-color vector illustrations for a variety of uses are produced using computer methods. Color theory, surface analysis, and rendering techniques are emphasized as they apply to vector-based illustrations.

CGT 221 Graphic Representation (3 cr.) Class 1, Lab 4. An introduction to 3D CAD modeling and rendering as applied to interior spaces and environments. Efficient 3D surface and solid geometric modeling strategies are emphasized in the creation of structures and furniture. Basic digital lighting issues are also addressed in relation to artificial lighting schemes and mechanisms.

CGT 226 Introduction to Constraint-based Modeling (3 cr.) Class 2, Lab 2. P: TG 116, TG 112, and MATH 151. Introduction to 2D and 3D geometry and techniques used in the construction of constraint-based models. Emphasis on the downstream applications of 3D solid modeling databases.

CGT 241 Introduction to Animation and Spatial Graphics (3 cr.) Class 2, Lab 2. P: TG 116, C: TG 211. This course introduces the knowledge base on which digital animation and spatial graphics are founded and developed. Emphasis will be placed on developing a working knowledge of the underlying process of 3D animation including mechanics of 3D geometric formats; spline, polygon mesh, and NURBS modeling; procedural mapping of raster images; simplified modeling, rendering methods; hierarchical linking; keyframe animation; thumbnail storyboarding and scripting fundamentals. (Course uses 3D Studio[®] software.)

CGT 242 Technical Graphics for Supervision (3 cr.) Class 1, Lab 2. An introduction to commonly encountered technical drawing practices; multiview representation, isometric pictorial, reading drawings, dimensioning practices, and working drawings. Emphasis is on technical graphics as technical communication through freehand sketching.

CGT 251 Principles of Creative Design (3 cr.) Class 2, Lab 2. P: TG 117. This course introduces the design of the human computer interface coupled with traditional graphical design concepts applied to the creation of dynamic digital tools. Concepts are applied to multimedia and hypermedia products and the related print-based materials normally associated with

them. Students learn graphic design, interface design, and information design to create effective and visually stimulating communication devices using multimedia and hypermedia tools. (QuarkXPress[®] or InDesign[®] software is used for this course.)

CGT 262 Introduction to Construction Graphics (3 cr.) Class 2, Lab 2. Study of graphic solutions to problems conditioned by traditional and emerging construction document standards. Students will produce graphics using sketching and computer-assisted processes.

CGT 267 Applications of Construction Documentation I (3 cr.) Class 2, Lab 2. P: TG 112 and TG 116. Principles of document standards applied to creation and distribution within the construction enterprise. Construction documents are created as products of a computer model database.

CGT 299 Selected Topics in Computer Graphics (1-3 cr.) Class 0-3, Lab 0-9. Hours and subject matter to be arranged by staff. Course may be repeated for up to 9 credit hours.

CGT 321 Advanced Pictorial Representation (3 cr.) Class 1, Lab 4. P: TG 221. The importance of tone, texture, color, and entourage is stressed in the rendering of architectural interiors and exteriors.

CGT 323 Introduction to 3D Surface Geometry (3 cr.) Class 2, Lab 2. P: MATH 221. Introduction to the visualization and creation of 3D computer-generated surface models and their applications in today's manufacturing, communications, and publishing industries. Emphasis on creating, editing, and manipulating 3D models. Efficient modeling strategies, data exchange, and orthographic view extraction is included. (Rhino[®] and Nendo[®] software are used for this course.)

CGT 326 Manufacturing Graphics Standards (3 cr.) Class 2, Lab 2. P: MET 242. Introduction to ANSI drawing standard practices including section views, dimensioning and tolerances, GDT, ISO 9000, fasteners, multiview drawings, working drawings, mechanisms, ECOs, symbols, and manufacturing processes as it applies to engineering drawings. (IronCAD[®] and/or SolidWorks[®] software is used in this course.)

CGT 340 Digital Lighting and Rendering (3 cr.) Class 2, Lab 2. P: TG 241. The development of a working knowledge of perspective display of three-dimensional models and the resulting effects of projected light sources on shade, shadow, color, texture, and atmospheric effects in architecture, product illustration, and animation. Emphasis will be placed on lighting design, analysis, and photorealistic simulation for commercial graphic applications.

CGT 341 Animation of Computer Graphics (3 cr.) Class 2, Lab 2. P: TG 340. An applied course covering three-dimensional computer graphic animation for graphics specialists and professionals involved in the use of technical design, time and motion study, surface texture mapping, digital lighting, color, and the technology required to produce computer animations for commercial applications in manufacturing design, marketing, and training. (3D Studio[®] software is used in this course.)

CGT 346 Digital Video and Audio (3 cr.) Class 2, Lab 2. P: TG 241. Covers the use of digital technologies for video and audio focused toward use in multimedia, hypermedia, and animation products. Students examine the methods for creating, sampling, and storing digital video and digital audio and the constraints placed on these media assets when used for media-based products. Emphasis is placed upon the technology of digital video and audio including formats, data rates, compressors, and the advantages and disadvantages of the different technologies. (Premiere[®], After Effects[®] and Sound Forge software is used in this course.)

CGT 351 Multimedia Authoring I (3 cr.) Class 2, Lab 2. P: TG 251. This course introduces the many facets of interactive multimedia design and production. Students are introduced to interaction-based authoring programs used for information delivery with special attention focused on the integration of various media assets for communication. Students also concentrate on the storage, management, and retrieval of media assets in a production environment. Considerable time is spent on the systematic design of interactive media products to meet specified goals of communication. (Director[®] and Flash[®] software is used in this course.)

CGT 356 Hypermedia Authoring I (3 cr.) Class 2, Lab 2. P: TG 251. A course focusing on the development of hypermedia for information distribution. The course stresses development strategies for managing the brief and rapidly changing information of corporations and organizations for just-in-time distribution. Topics include intranets, extranets, networks, the World Wide Web, development languages, and other newly developed technologies. (HTML, JavaScript, and other languages are utilized within this course.)

CGT 362 Applications of Construction (3 cr.) Class 2, Lab 2. P: TG 216, TG 266, and CPT 175. A further study of the creation, archiving, integrating, qualifying and utilization of a computer-generated three-dimensional architectural model within a construction enterprise. The three-dimensional model, as a database, is emphasized through numerous applications.

CGT 411 Contemporary Problems in Computer Graphics (3 cr.) Class 3, or Class 2, Lab 2. P: Senior Standing. Groups will identify, design, qualify, manage, create, and present a final project relative to existing or emerging issues within computer graphics. Activities and experiences will explore related topics such as project planning and management, user expectations, project politics, interpersonal communications skills, and quality management. The course concludes with faculty, peer, and practicing professional evaluation of oral, written, and media presentations.

CGT 415 Seminar for Senior Design Project (1 cr.) Arranged 1. P: Senior standing. Preliminary work toward the senior design project is carried out with guidance from faculty. This course includes background research, review of previous projects, definition of project requirements, and the successful creation of a formal project proposal. The course concludes with a proposal presentation to faculty.

CGT 416 Contemporary Problems in Computer Graphics (3 cr.) Class 3, or Class 2, Lab 2 P: TG 415. This capstone course requires students to engage in a substantive endeavor directed at solving problems related to computer graphics. Activities include the creation and management of graphic systems and media assets per the requirements of the senior design proposal. Students are required to demonstrate professional attitudes and attributes in the timely completion and presentation of their project.

CGT 423 Manufacturing Document Production and Management (3 cr.) Class 2, Lab 2. P: TG326. An overview of relevant topics which impact manufacturing document production and control technology with an emphasis on PDM, ASP's, and extranets. This course will explore the management and presentation of graphical Web databases. Attention will be given to data transfer, file conversions, techniques for storing and retrieving databases in a variety of formats, and editing databases. (Alibre, and/or other web-collaborative 3D modeling software will be used in this course.)

CGT 442 Advanced Computer Animation (3 cr.) Class 2, Lab 2. P: TG 341. An applied course covering advanced spline modeling techniques, lighting techniques, applied shading, motion dynamics and controllers, particle systems, application customization programming, and pre-production development and planning. In addition to developing a working knowledge of advanced techniques, a scholarly study of emerging advancements in computer animation and spatial graphic technology will be included. (3D Studio®, Lightwave®, or Maya® software is used in this course.)

CGT 446 Technical Animation Production and Direction (3 cr.) Class 3 or Class 2, Lab 2. P: Senior standing and consent of instructor. A variety of commercial applications of technical animation and spatial graphics are analyzed and produced with special emphasis upon client development, design, organization, scripting, storyboarding, technical production, management, and evaluation.

CGT 451 Multimedia Authoring II (3 cr.) Class 2, Lab 2. P: TG 356. As a continuation of TG 256, this course focuses on the use of authoring programs to create interactive multimedia products. Significant time is spent on intermediate to advanced programming and scripting as well as the synchronization of aural and graphical components. Students are required to plan, design, and implement a major project, and a final presentation is required.

CGT 456 Hypermedia Authoring II (2 cr.) Class 3, or Class 2, Lab 2. P: TG 351. This course presents the advanced technologies available for use on the World Wide Web and within corporate Intranet environments. Emphasis and discussion are focused on the advantages and disadvantages of these technologies as well as implementation to create unique solutions for business and industry. Strategies for planning, development, and implementation will be discussed and demonstrated. (Current technological tools are utilized in this course.)

Computer Integrated Manufacturing Technology (CIMT)

CIMT 100 Introduction to CIM Technology (1 cr.) Class 1. CIMT 100 presents students with a vision of how the techniques and tools of computer-integrated manufacturing (CIM) work together to support the operation of a manufacturing business.

CIMT 224 Production Planning and Control (3 cr.) Class 3. P: MATH 151 or equivalent. Preproduction consideration of the most economical methods, operations, and materials for the manufacture of a product. Includes planning, scheduling, routing, and detailing of production control procedures.

CIMT 243 Automated Manufacturing I (3 cr.) Class 2, Lab 2. P: EET 116 and CPT 140. Examination of how industrial controls, programmable logic controllers (PLCs), and industrial robots function in an automated manufacturing environment. Students learn the theory of operation, how to program, and the practical application of PLCs and electric robots. Introductory-level integration topics and commonly used industrial control devices are also addressed.

CIMT 244 Automated Manufacturing II (3 cr.) Class 2, Lab 2. P: MET 242 and CPT 140. Shop floor components of computer-integrated manufacturing are introduced. Emphasis is focused on current applications and programming practices of various computer automated manufacturing processes and technologies. Topics include CAD/CAM integration, computer-assisted numerical control programming, computer-assisted quality control, and automatic identification.

CIMT 245 CAD Tool and Fixture Design (3 cr.) Class 2, Lab 3. P: MET 102. Tool design methods; tooling materials and heat treatment; design of cutting tools; gage design; design of jigs and fixtures; design of tools for CNC machines; tool design using CAD systems. Tool design term projects using CAD systems required. Not open to students who have credit in MET 245.

CIMT 260 Robotics and Automated Material Handling (3 cr.) Class 2, Lab 2. P: MATH 153 and MET 105. A survey of the types of industrial robots and their applications in manufacturing. Safety, application limitations, and economic justification will be considered. Automated material-handling equipment will be reviewed. Laboratory exercises will involve programming an educational robot using a teach pendant and microcomputers.

CIMT 310 Plant Layout and Material Handling (3 cr.) Class 3. P: MET 102. A study and analysis of material flow in a manufacturing facility; material-handling equipment; plant layout principles for manufacturing service, storage, and office areas; and industrial packaging techniques. Emphasis is on application to manufacturing problems. Not open to students who have credit in IET 310.

CIMT 360 CIM in Electronics Manufacturing (4 cr.) Class 3, Lab 2. This course covers the manufacture and assembly of electronic printed

circuit boards from component selection and board layout to soldering and test. Special emphasis is placed on high volume manufacturing techniques and state-of-the-art processes, such as surface mount technology (SMT). Laboratory projects include CAD circuit board layout, using automatic placement and soldering equipment, investigating thermal characteristics of circuit boards, process design, and evaluation using SPC techniques. Effects of manufacturing processes on electrical characteristics are considered.

CIMT 460 Motion and Time Study (3 cr.) Class 2, Lab 3. P: Junior standing. Techniques of motion and time study, process charts, operation charts, multiple activity charts, micromotion study, therbligs, and stopwatch time study.

CIMT 481 Integration of Manufacturing Systems (3 cr.) Class 2, Lab 2. P: Senior standing in CIMT program. This is a capstone course that emphasizes the integration of traditional manufacturing activities such as planning, facilities, materials handling, production control, etc. Students will analyze case studies and complete directed projects. Field trips may be required.

CIMT 497 Senior Project (3 cr.) Class 2, Lab 2. Directed work on individual projects for senior computer-integrated manufacturing technology students.

CIMT 499 Computer Integrated Manufacturing Technology (1-4 cr.) Class 0-4, Lab 0-9. Hours and subject matter to be arranged by staff. Course may be repeated for up to 9 credit hours.

CIMT Employment Enrichment Programs

CIMT C198, C298, C398, C495 and C498 Cooperative Education Practice I-V (1-5 cr.) P: Sophomore standing and program advisor approval. A semester or summer of external, full-time, related career experiences designed to enhance the student's academic program and intended career with a business, industry, or government agency. A comprehensive written report on the practice is required.

CIMT I198, I298, I398, I495, and I498 Career Enrichment Internship I-V (1-5 cr.) P: Sophomore standing and program advisor approval. A semester or summer of external, full-time, related career experiences designed to enhance the student's preparedness for entering an initial or a second career. A comprehensive written report on the internship experience is required.

CIMT E198, E298, E398, E495, and E498 Employment Enrichment Experience I-V (1-5 cr.) P: Sophomore standing and program advisor approval. A semester or summer of external, full- or part-time, related employment enrichment experiences designed to enhance the student's academic program and intended career with a business, industry, or government agency. A comprehensive written report on the enrichment experience is required.

Computer Technology (CPT)

CPT 102 Discovering Computer Technology (1 cr.) Class 1. This course introduces students to computer technology and campus resources. It is designed to help students develop essential writing and thinking skills along with the study and time-management skills needed for academic success in computer technology. Teaching/learning strategies will use campus technology and library resources as tools for completion of course requirements.

CPT 106 Using a Personal Computer (3 cr.) Class 2, Lab 2 or Class 3. This course explores the use of personal computer software. Students solve problems through hands-on experience with word processing, spreadsheets, data management, and presentation graphics. The course also surveys Internet tools including electronic mail, World Wide Web, gopher, FTP, Telnet, and strategies for resource discovery.

CPT 112 Information Technology Fundamentals (3 cr.) Class 3. P: Consent of instructor. This course provides students with a working knowledge of the terminology, processes, and components of information systems and the application development process. Students will receive hands-on experience with the Internet and the World Wide Web.

CPT 115 Computer Information Systems Fundamentals (3 cr.) Class 3. P: None. This course provides students with a working knowledge of the terminology, processes, and components of information systems, information systems development, and hands-on experience with the Internet and World Wide Web as well as state-of-the-art hardware and software.

CPT 120 Quantitative Analysis I (3 cr.) Class 3. P: MATH 111. An introduction to both qualitative and quantitative problem solving featuring a systems approach that relies on graphic models to describe such concepts as relations, sequences, and logic patterns. Course includes a brief introduction to set theory, logic, and descriptions of data.

CPT 123 Internet Skills (3 cr.) Class 2, Lab 2 or Class 3. P: None. This course is designed to be taken via the Internet. It uses the Internet both as the message and the media for presentation. It is designed to increase an individual's competency in the global communication environment. All assignments, examinations, and quizzes are structured so they may be executed via the Internet.

CPT 140 Programming Constructs Laboratory (3 cr.) Class 2, Lab 2. P: CPT 106 and course in problem solving or consent of course coordinator. Application of problem-solving techniques, programming logic, program design, and development.

CPT 188 Microcomputer Applications Packages (variable title) (3 cr.) P: Varies with course content. Introduction to the topics and skills associated with a selected microcomputer applications package. Because various applications packages may be offered under this title, this course may be repeated for up to 9 credit hours.

CPT 212 Web Site Design (3 cr.) Class 3. P or C: CPT 112. This course is designed to give the students basic understanding of the proper process to be used for developing an effective commercial Web site. This course will cover the full development cycle including analysis, design, and construction components.

CPT 213 Web-based Analysis and Design (3 cr.) Class 3. P or C: CPT 215. Concepts, processes, and tools of systems analysis and system design. Object-oriented methods and tools are utilized. Web-based user interfaces and prototypes are developed by students.

CPT 214 Web Data Management (3 cr.) Class 3. P or C: CPT 212. Introduction to Web database concepts. Extensive exploration of data manipulation using a relational DBMS and SQL in a Web environment. Students will create a database with a Web interface.

CPT 215 Web Programming (3 cr.) Class 3. P or C: CPT 214. This course will provide students with the knowledge and techniques of a variety of Web programming languages. Both client and server side languages will be examined and will include Perl, ASP, and JavaScript.

CPT 220 Quantitative Analysis II (3 cr.) Class 3. P: CPT 120 or EET 105, MATH 153. Continued investigation into problem-solving tools and techniques including functions and relations, Boolean algebra and switching theory, probability, statistical distributions (with emphasis on the normal and Poisson), and the use of appropriate software.

CPT 223 Web Page Design (3 cr.) Class 2, Lab 2 or Class 3. P: CPT 106. This course is designed to give students a basic look at World Wide Web page and site creation. The course involves current HTML fundamentals, design concepts, links, anchors, use of color, placing graphics, utilization of tables, image maps, site structures, and the use of search engines.

CPT 233 Hardware/Software Architecture (3 cr.) Class 2, Lab 2 or Class 3. P: CPT 115. This course presents a detailed investigation of computer hardware and software. Looking at hardware and software components, along with several operating systems, students should enhance their knowledge of the interrelations between these components. In addition, through the use of programming examples, the student will learn about the structure of the microprocessor and microcomputer basics.

CPT 242 Introduction to ASP.Net Programming (3 cr.) Class 2, Lab 2 or Class 3. P: CPT 115 and CPT 140 or consent of instructor. This course will provide students with the tools and techniques to build dynamic Web sites using the ASP.Net programming environment. Students gain hands-on experience building a database-driven Web site.

CPT 254 Analysis and Design (3 cr.) Class 2, Lab 2 or Class 3. P: CPT 140, CPT 223, and CPT 288. Concepts, processes, and tools of systems analysis and systems design. Object-oriented methods and tools are utilized. Web-based user interfaces and prototypes are developed by students.

CPT 262 Problem Solving and Programming (3 cr.) Class 3 or Class 2, Lab 2. P: CPT 115 and CPT 140. An introduction to object-oriented programming with emphasis on object design, construction, use, modification, and reuse.

CPT 270 Java Programming (3 cr.) Class 3. P: CPT 115 and 140. This course is an introduction to the Java programming language. Students will learn the syntax of the language, how to use objects, classes, and methods, and will perform programming exercises that illustrate how Java is used in stand-alone applications and applets.

CPT 286 Operating Systems and Administration (3 cr.) Class 2, Lab 2 or Class 3. P: CPT 233 or EET 205, and CPT 262 or CPT 265 or CPT 270. An introduction to computer operating systems and other systems software, with emphasis on both microcomputers and mainframes. Hardware architecture, multiprogramming and timesharing, command and control languages, memory management, scheduling, and interrupt handling.

CPT 288 Using a Database Management System (3 cr.) Class 2, Lab 2 or Class 3. P: CPT 106, CPT 115, and CPT 120. Introduction to basic database development concepts. Extensive exploration of data manipulation using a relational DBMS and SQL. Students develop a microcomputer database application using Web database technology.

CPT 290 Computer Project (1-4 cr.) Independent study for sophomore students wanting to execute a complete computer-oriented project. Course may be repeated for up to 6 credit hours.

CPT 299 Computer Technology (1-4 cr.) Hours, credit, and subject matter to be arranged by staff.

CPT 303 Communications Security and Network Controls (3 cr.) Class 3. P: CPT 307 and CPT 341. Conventional encryption, and many hardware, software, and managerial controls needed to operate a data communication network in a safe and secure manner. Emphasis is on security attacks, malicious programs, authentication, and availability. In addition, legal and ethical issues are covered.

CPT 307 Data Communications (4 cr.) Class 4. P: Sophomore standing. This course provides the foundation for the understanding of data communication systems and computer networks. Topics include information representation and transmission, medium types and configuration, telephony, error handling, TCP/IP and internetworking, and diagnostic techniques.

CPT 312 Advanced Web Site Design (3 cr.) Class 2, Lab 2 or Class 3. P: CPT 212 or 223 and CPT 213 or 254. This course will cover both internal Web site design issues such as security, reusability, and architecture and external design issues such as user interfaces, load times, and multi-media.

CPT 313 Commercial Web Site Development (3 cr.) Class 3. P or C: CPT 213. This course will provide students with the opportunity to work directly with local companies by developing a Web site to support the company's business activities. Students will be required to utilize many of the skills and techniques learned in the prior certificate courses.

CPT 315 Introduction to Multimedia

Programming (3 cr.) Class 2, Lab 2 or Class 3. P: CPT 223 or CPT 212. An introduction to computing concepts in multimedia development. An integration of the science behind multimedia including compression algorithms, analog/digital conversions, media filtering, streaming media, and XML-based languages. Lecture and laboratory.

CPT 316 Introduction to Virtual Reality (3 cr.)

Class 2, Lab 2 or Class 3. P: CPT 223 or CPT 212. Explore concepts of 3D imaging and design including primitive shapes, transformations, extrusions, facesets, texture mapping, shading, and scripting. Lecture and laboratory.

CPT 317 System and Network Administration

(3 cr.) Class 2, Lab 2 or Class 3. P: CPT 307 and CPT 286. Fundamental concepts of system administration. Design and administration of network servers and workstations. Focus on basic network concepts such as user account administration, resource allocation, security issues, and Internet service management. Lecture and laboratory.

CPT 320 Quantitative Analysis III (3 cr.)

Class 3. P: CPT 220 and junior standing. A continuation of statistical inference introduced in Quantitative Analysis II with emphasis on confidence intervals, hypothesis testing, analysis of variance, forecasting including linear regression and correlation, and quality control as they apply to information technology.

CPT 323 Multimedia (3 cr.)

Class 2, Lab 2 or Class 3. P: Junior standing. This course covers contemporary, interactive multimedia technology systems, focusing on types, applications, and theories of operation. Students learn how to digitize and manipulate images, voice, and video materials.

CPT 325 Human-Computer Interaction (3 cr.)

Class 2, Lab 2 or Class 3. P: CPT 223 or CPT 212. Human-computer interaction (HCI) focuses on understanding how humans interact with computers and how they can use this knowledge to improve the design and evaluation of computer systems, particularly the user interface. This course will examine the development, evaluation, and testing of effective and efficient computer interfaces.

CPT 329 Java Server Pages (3 cr.)

Class 2, Lab 2 or Class 3. P: CPT 270. This course will cover the development of Java Server Pages (JSP) and Java Servlets in an e-commerce environment.

CPT 336 Data Communications Lab (2 cr.)

Class 1, Lab 2. P or C: CPT 307. This course is a companion to CPT 307 and emphasizes hands-on lab work. In this course, students will implement hardware and software configurations to meet specific requirements of a data communications system. In addition, students will explore tools and network troubleshooting.

CPT 347 Advanced ASP.Net (3 cr.)

Class 2, Lab 2 or Class 3. P: CPT 242. This course will apply the ASP.Net framework to e-commerce applications. Advanced ASP.Net techniques will be covered such as Web services, ADO, and reusable components.

CPT 352 Decision Support and Information

Systems (3 cr.) Class 3. P: CPT 254. Definition of support and management information systems—similarities and differences. Use of decision support systems (DSS) and management information systems (MIS) in organizations. Tools for modeling and simulation. Application of system analysis and system design concepts to DSS and MIS situations.

CPT 362 Object-Oriented Programming (3 cr.)

Class 3 or Class 2, Lab 2. P: CPT 262 after fall 2000 or CPT 362 prior to fall 2000 or equivalent C++ programming course. This course continues the study of object-oriented programming by introducing visual components. Students complete exercises and programs using an object oriented programming language in a visual environment.

CPT 374 Systems and Database Analysis (4 cr.)

Class 2, Lab 4. P: CPT 254, CPT 288. Intensive exploration of application and database analysis in a synergistic environment. Students engage in collaborative, project-based activities to learn about project management, requirements analysis, modeling, prototyping, employing problem solving, and team-building skills.

CPT 384 Systems Design (3 cr.)

Class 2, Lab 2 or Class 3. P: CPT 374. Application of tools and techniques for system designs through a semester project. Software selection decisions, conversion and implementation planning, post-operational review planning, and maintenance considerations are also discussed.

CPT 388 Topics in Programming Languages

(variable title) (3 cr.) Class 3 or Class 2, Lab 2. P: One 200-level programming language course. Varies with course content (prerequisites will be included in the semester class schedule). Since various languages may be offered under this title, this course may be used for a maximum of 9 hours of credit.

CPT 402 Design and Implementation of Local

Area Networks (3 cr.) Class 2, Lab 2 or Class 3. P: CPT 307 or CPT 341. The design, implementation, and configuration of local area networks. Working in groups, students install the necessary hardware and software to set up a LAN server with several clients. Students will explore topics including inter-networking, network management, network performance, and security.

CPT 407 Fundamentals of Intelligent Agents

(3 cr.) Class 2, Lab 2 or Class 3. P: CPT 254, CPT 288, and 300-level programming language. This course covers the concepts, applications, and theories of operations of intelligent agent technology. An intelligent agent is a software program that uses communication protocols to exchange information for automatic problem solving. Students will perform an in-depth analysis of an intelligent agent for a specific application and construct a prototype of it.

CPT 410 Information Technology Ethics and

Leadership (3 cr.) Class 3. P: Junior standing. This course provides participants with ability to understand and analyze ethical and leadership issues

in a highly dynamic IT environment. Participants also learn about legal, management, moral and social issues of IT in a global society. It supports the growing need to sensitize individuals concerning ethical utilization of information technology.

CPT 412 XML-Based Web Applications (3 cr.)

Class 2, Lab 2 or Class 3. P: CPT 214 or CPT 288 and CPT 212 or 223, and 200-level programming course. This course covers how to build Web applications using XML. Students will learn how to create and validate data in XML documents and how to display XML documents using Cascading Style Sheets (CSS), XSL Transformations (XSLT), data binding and the Document Object Model.

CPT 419 Streaming Media Technology Design

(3 cr.) Class 2, Lab 2 or Class 3. P: CPT 323. This course focuses on the technology that allows the transmission of audio, video, and multimedia type content over the Internet or private network. Topics will focus on the understanding, design, and development of efficient and effective multimedia programs.

CPT 420 Advanced Multimedia (3 cr.)

Class 2, Lab 2 or Class 3. P: CPT 323 and 200-level programming language. This course provides an intensive opportunity to develop and produce interactive multimedia instructional-based projects. Topics will focus on using Lingo Scripts and functions of interactive branching in a multimedia environment.

CPT 423 Electronic Commerce (3 cr.)

Class 2, Lab 2 or Class 3. P: Junior standing. Overview of current electronic commerce applications and the related legal and policy issues. Coverage of electronic payment systems, authentication, and security. Topics such as privacy, content selection and rating, and intellectual property rights are discussed.

CPT 426 Enterprise Networks (3 cr.)

Class 2, Lab 2, or Class 3. P: CPT 402 or CPT 440. An introduction to enterprise networks and the issues related to their design and implementation. This course examines the need for corporate networks and the role they play in the business environment. Students will learn how to integrate various technologies to meet the needs of an organization. Topics covered include network security, interoperability, performance, and integration.

CPT 436 Advanced E-Commerce Development

(3 cr.) Class 2, Lab 2 or Class 3. P or C: CPT 347 or CPT 329. This course will allow students the opportunity to develop a data driven e-commerce site for a small- to medium-size company.

CPT 440 Communication Network Design

(3 cr.) Class 2, Lab 2 or Class 3. P: CPT 307 or CPT 341. An introduction to wide area networking, which is a technology used to extend telecommunications connectivity for information distribution over large geographic regions. Topics include architecture, design including Frame Relay and ATM, and implementation, as well as the influence of the state and federal regulatory environments.

CPT 479 Database Implementation and Administration (3 cr.) Class 2, Lab 2 or Class 3. P: CPT 288 and CPT 286. Extends knowledge of database concepts. Topics include physical database design, client/server implementation, and database administration. Given logical database design, students develop physical database structures and implement a database application. Students carry out database design, construction, and programming activities using client/server technology.

CPT 484 Systems Analysis and Design Project (3 cr.) Class 3. P: CPT 384. This is a seminar-styled course utilizing a collaborative learning approach to analyze and design a realistic information system of moderate complexity. Synthesis of system analysis and design concepts, principles, and practices are the major content components. Project management, group dynamics, and conflict resolution are experienced and discussed by the course participants.

CPT 490 Senior Project (1-4 cr.) Independent study for seniors wanting to execute a complete computer-oriented project. Course may be repeated for up to 7 credit hours.

CPT Employment Enrichment Programs

CPT C198, C298, C398, C494, and C498 Cooperative Education Practice I-V (1-5 cr.) P: Sophomore standing and program advisor approval. A semester or summer of external, full-time, related career experiences designed to enhance the student's academic program and intended career with a business, industry, or government agency. A comprehensive written report on the practice is required.

CPT I198, I298, I398, I494, and I498 Career Enrichment Internship I-V (1-5 cr.) P: Sophomore standing and program advisor approval. A semester or summer of external, full-time, related career experiences designed to enhance the student's readiness for entering an initial or a second career. A comprehensive written report on the internship experience is required.

CPT E198, E298, E398, E494, and E498 Employment Enrichment Experience I-V (1-5 cr.) P: Sophomore standing and program advisor approval. A semester or summer of external, full- or part-time related experiences designed to enhance the student's academic program and intended career with a business, industry, or government agency. A comprehensive written report on the enrichment experience is required.

Construction Technology (CNT)

CNT 105 Introduction to Construction Technology (3 cr.) Class 2, Lab 2. A survey of the opportunities available within the construction industry. The laboratory is utilized to learn the basics of computers, the library, and e-mail systems available on campus, and the basics of word processing, spreadsheets, and computer programming. No previous computer knowledge is necessary.

CNT 110 Construction Accounting (3 cr.) Class 2, Lab 2. Accounting fundamentals as utilized in the construction industry with a special emphasis on basic design of construction cost accounting systems as used to manage a construction company. Use of construction cost indices for labor and materials, as well as use of construction accounting for estimating and bidding purposes. Use of accounting management software as appropriate.

CNT 280 Quantity Survey (3 cr.) Class 2, Lab 3. P or C: ART 155 or CET 275 or consent of instructor. A study of methods to estimate quantities of materials required in construction. Practice in making quantity surveys.

CNT 302 Construction Law and Ethics (3 cr.) Class 3. P: Junior standing. Practical focus on key legal and ethical issues applicable to the construction industry and how to manage them. Laws related to construction work, contractual relationships and strategies, torts, liabilities, bonding, insurance, risk management, dispute avoidance and resolution, liens, partnering, and ethics are among topics covered.

CNT 330 Construction Field Operations (3 cr.) Class 3. P: Junior standing or consent of instructor. Study of types and uses of construction equipment and machinery in relation to diverse field operations. Analysis of equipment productivity and costs.

CNT 341 Construction Scheduling and Project Control (3 cr.) Class 2, Lab 3. P: CNT 280 and CNT 347. A study of the use of computers for creating, presenting, revising, and updating construction schedules, and in using the schedule and other programs to assist in managing a construction project.

CNT 342 Construction Cost and Bidding (3 cr.) Class 2, Lab 3. P: CNT 280 or consent of instructor. Course includes a study of the methods of estimating costs for labor, material, equipment, and direct overhead for construction projects; how to establish markups for indirect overhead and profit; procedures for setting up a computerized estimating system; and conceptual estimating procedures.

CNT 344 Construction Inspection (3 cr.) Class 3. P: Junior standing or consent of instructor. Inspection procedures as applied to contracted construction, and the role inspection plays in the execution of the completed contract. The laboratory period is for field trips to construction sites.

CNT 347 Construction Contract Administration and Specifications (3 cr.) Class 2, Lab 2. P: Junior standing or equivalent. Relationship between all parties involved in the construction process. Analysis of contracts, the general and special conditions of the contract, specifications and their purpose/intent, standard specifications, adaptation of selected provisions from standard specifications, and delineation of special supplemental conditions.

CNT 390 Construction Experience (1 cr.) Consent of instructor. Minimum of 10 weeks' work experience in the construction industry, with at least five weeks' experience in the field. Written report of this experience.

CNT 446 Construction Financing (3 cr.) Class 3. P or C: CNT 347. Principles and sources of

construction funding for contracting firms and projects during all phases of construction. Mortgage and construction loans, market and feasibility studies for construction projects, effects of company organizational structure on funding, overhead and project cost control, and financial management.

CNT 447 Construction Project Management (3 cr.) Class 3. P: CNT 341 and CNT 342. A study of construction organizations, their forms and functions, project management procedures and documents, and financial management within a construction organization. Subjects appropriate for those working within a construction organization will be emphasized. Role playing may be incorporated.

CNT 452 Construction Safety and Inspection (3 cr.) Class 3. P: CNT 347 and junior standing. A study of safety and inspection requirements for construction sites and projects. Accident record keeping, reporting; requirements of the OSHA code; inspection for safety and hazards, environmental issues, and quality; risk control; and management issues related to these. Development and implementation of company safety and hazard communication and inspection programs.

CNT 470 Site Development (3 cr.) Class 3. P or C: CET 452 or consent of instructor. Principles and practices of land development, with consideration of market analysis, site selection, restrictions imposed by covenants and governmental regulations, costs, and financing. Collection of data and preparation of drawings for site development.

CNT 488 Construction Structures (3 cr.) Class 3. P: CET 382 and CET 484 or consent of instructor. Design of construction structures and erection procedures for use during construction, including temporary bridges, scaffolding, sheeting, bracing, and underpinning; erection stresses in bridges and buildings.

CNT 490 Senior Project (3 cr.) P: Senior standing. The development of a project that will combine the skill and knowledge gained from various areas of study. The student will be expected to present a project that has been approved by the faculty advisor to a panel of faculty chosen by the advisor. This presentation should include graphical material as well as oral and written communication.

CNT 492 Value Management for Construction (3 cr.) Class 3. P: Senior standing or consent of instructor. Value engineering and value management theory and procedures as applied to buildings and construction projects. Life-cycle cost theory with regard to construction prices, from conception through the total life expectancy of a structure.

CNT 494 Engineering Economics for Construction (3 cr.) Class 3. P: Senior standing. Introduction to engineering economy and its methods related to time value of money. Economical evaluation and comparison of alternatives considering costs, returns, interest, taxes, and probability in a time span; determining feasibility, break-even points, and rate of return. Cost indices for construction.

CNT 499 Construction Technology (1-4 cr.) Hours, subject matter, and credit to be arranged by staff. Course may be repeated for up to 9 credit hours.

CNT Employment Enrichment Programs

CNT C198, C298, C398, C496, and C498

Cooperative Education Practice I-V (1-5 cr.) P: Sophomore standing and program advisor approval. A semester or summer of external, full-time, related career experiences designed to enhance the student's academic program and intended career with a business, industry, or government agency. A comprehensive written report on the practice is required.

CNT I198, I298, I398, I496, and I498 Career Enrichment Internship I-V (1-5 cr.)

P: Sophomore standing and program advisor approval. A semester or summer of external, full-time, related career experiences designed to enhance the student's readiness for entering an initial or a second career. A comprehensive written report on the internship experience is required.

CNT E198, E298, E398, E496, and E498

Employment Enrichment Experience I-V (1-5 cr.) P: Sophomore standing and program advisor approval. A semester or summer of external, full- or part-time, related employment enrichment experiences designed to enhance the student's academic program and intended career with a business, industry, or government agency. A comprehensive written report on the enrichment experience is required.

Electrical Engineering Technology (EET)

EET 102 Electrical Circuits I (4 cr.) Class 3, Lab 3. P or C: MATH 153. A study of DC electrical circuits, Ohm's law, Kirchhoff's laws, series and parallel circuits, network theorems, mesh and nodal analysis, power, introductory magnetism, ammeters, voltmeters, ohmmeters, inductance, capacitance and transients.

EET 103 Topics in Electrical Technology (1-4 cr.) Class 1. P: None. This course includes specialized topics and skills associated with electrical technology. The level of coverage varies according to the audience. Since various electrical/electronics topics may be offered under this title, this course may be repeated.

EET 105 Digital Fundamentals I (3 cr.) Class 2, Lab 3. P: None. A study of logic gates, binary arithmetic codes, Boolean algebra, mapping, adders, comparators, decoders, encoders, multiplexers, and demultiplexers. Small Scale (SSI) and Medium Scale (MSI) integrated circuits and programmable logic devices are used in combinatorial and sequential circuits.

EET M105 Introduction to Electronics (2-3 cr.) Class 2-3, Lab 2. P: None. Lecture and laboratory will cover basic circuit elements and circuit analysis, analog and digital components, DC and AC circuits, electrical measuring techniques, and materials and processes in electronics manufacturing, including printed circuit board layout and fabrication, through-hole and surface-mount manufacturing processes, test, inspection, and cleaning.

EET 112 How Electrical Things Work (3 cr.) Class 3. P: None. This engineering science course

explains how electrical things work to offer an understanding into the complexities of today's technology. The goal of this course is to demystify modern technology, and to explain the theory and scientific principles behind the electrical and physical devices that exist in our everyday lives. May not be used for credit by EET majors.

EET 114 Introduction to Microcomputers (3 cr.) Class 2, Lab 2. P or C: MATH 153. Problem solving and computing with emphasis on electrical engineering technology applications. Introduction to microcomputing basics and C language as applied to solving electrical technology problems.

EET 116 Electrical Circuits (4 cr.) Class 3, Lab 2. P or C: MATH 154. A study of DC, AC, and digital circuits. Circuit components; R,L,C; voltage; current; power; Ohm's law; Kirchhoff's laws; series and parallel circuits; electrical measurements; sinusoidal voltages; currents; impedances; RL, RC, RLC; transformers; motors; polyphase systems; the National Electrical Code; and combinational and sequential logic circuits. May not be used for credit by EET majors.

EET M150 Electronics Manufacturing I (3 cr.) Class 2, Lab 2. An introduction to the fabrication of electronic products. Topics include components, printed-circuit board layout and fabrication, PCB assembly and inspection, chassis hardware and assembly, and harness and cable fabrication. Students will fabricate and assemble a working prototype in the laboratory.

EET 152 Electrical Circuits II (4 cr.) Class 3, Lab 3. P: EET 102, P or C: MATH 154. A study of AC electrical circuits, the j operator, phasors, reactances, impedances, phase relationships, power, network theorems, resonance, frequency response, and transformers.

EET 154 Analog Electronics I (4 cr.) Class 3, Lab 3. P: EET 114, P or C: EET 152. A study of the characteristics and applications of transistors, integrated circuits, and other solid-state devices. Includes rectifier circuits, waveform interpretation, AC and DC load lines, biasing techniques, and operational amplifiers.

EET 155 Digital Fundamentals II (3 cr.) Class 2, Lab 3. P: EET 105. A continuation of EET 105. Sequential logic circuits, flip-flops, counters, programmable device logic, shift registers, logic families, and introductory computer concepts.

EET M200 Electronics Manufacturing II (4 cr.) Class 2, Lab 2. P: EET M150 or EET 154. Techniques for high volume manufacturing of printed circuit boards. Both through-hole and surface-mount assemblies are included. Topics include computer-aided circuit design, printed-circuit board layout, board fabrication, assembly, and test. System integration of the entire process and statistical quality control are stressed.

EET 204 Analog Electronics II (4 cr.) Class 3, Lab 3. P: EET 154. A study of the applications of transistors, integrated circuits, and other solid-state devices. Feedback principles as applied to amplifiers, oscillators, and regulated power supplies. Includes large-signal power amplifiers, special-purpose amplifiers, and simulation software.

EET 205 Introduction to Microprocessors (4 cr.) Class 3, Lab 3. P: EET 114, P or C: EET 155. A study of microprocessor architecture, interfacing, software, arithmetic, memory devices, programming peripherals, and applications. Real-time programming techniques are stressed.

EET 212 Electrical Power and Machinery (4 cr.) Class 3, Lab 3. P: EET 152. P or C: PHYS 218. Power transformers and single and polyphase circuits; d-c machines and a-c single and polyphase synchronous and induction machines. An introduction to power electronics.

EET 234 PC Systems I (4 cr.) Class 3, Lab 2. P: EET 105, CPT 140. Personal computer hardware and software. Components of the computer including CPU, memory, ports, drives and cards. Setup, operation and troubleshooting. Labs include topics within A+ certification and hardware/software interfacing using Visual Basic.

EET 284 Computer Communications (4 cr.) Class 3, Lab 2. P: EET 234. An introductory course in data communication systems. The hardware and software issues in computer communications are studied. Emphasis on hands-on experience in computer communications, such as cabling, use of communication devices and media, choice of networking topologies, protocols, and platforms.

EET M290 Projects in Electronics Manufacturing (4 cr.) Class 2, Lab 4. P: EET M200. A capstone course in electronics manufacturing. Students will be given a printed circuit board to lay out and assemble using automated techniques. They will develop test strategies and implement statistical process control. At the end of the course, each student will present written and oral reports on his or her part of the project. Students will evaluate each step of the manufacturing process.

EET 302 Introduction to Control Systems (4 cr.) Class 3, Lab 2. P: EET 105 and EET 152 or EET 116. Control systems commonly used in industrial and commercial facilities; relay control systems, programmable control systems, automatic control systems. Laboratories provide hands-on experience with relay control, PLCs, and feedback control.

EET 303 Communications I (4 cr.) Class 3, Lab 2. P: EET 204 and MATH 222. A study of AM and FM modulation and detection, receivers, transmitters, networks, filters, antennas, and transmission lines through VHF frequency spectrum.

EET 305 Advanced Microprocessors (4 cr.) Class 3, Lab 3. P: EET 205. Use of microprocessors and related components in the design of microprocessor-based systems. Hardware and software design of microprocessor-based system. High-level programming languages and real-time operating systems are utilized.

EET 307 Analog Network Signal Processing (4 cr.) Class 3, Lab 3. P: EET 204 and P or C: MATH 222. An advanced course in network analysis that stresses network theorems and solutions of time-domain and frequency-domain problems.

EET 331 Generation and Transmission of Electrical Power (4 cr.) Class 3, Lab 2. P: EET 212.

A study of the generation and transmission of electrical energy. Includes techniques used by electric utilities for the protection of generating equipment and transmission lines, an introduction to the economic considerations of power plant operation and three-winding transformers, and methods of solving unbalanced three-phase systems.

EET 357 Real-Time Digital Signal Processing (4 cr.) Class 3, Lab 3. P: EET 205. Architecture, instruction set, and hardware and software development tools associated with a fixed-point general-purpose DSP processor. Fundamental principles associated with the processing of discrete-time signals. Common applications such as waveform generation, FIR and IIR digital filtering, and DFT- and FFT-based spectral analysis and filtering.

EET 360 CIM in Electronics Manufacturing (4 cr.) Class 3, Lab 2. P: EET 204. Manufacture and assembly of electronic printed circuit boards, from component selection and board layout to soldering and testing. Special emphasis on high-volume manufacturing techniques and state-of-the-art processes, such as surface-mount technology (SMT). Laboratory projects include CAD circuit board layout, using automatic placement and soldering equipment, investigating thermal characteristics of circuit boards, process design and evaluation using SPC techniques. Effects of manufacturing processes on electrical characteristics are considered.

EET 371 Automation, Instrumentation, and Process Control (4 cr.) Class 2, Lab 4. P: EET 204, EET 205, and EET 302. A project-oriented course combining three areas of EET: microcontrollers, instrumentation, and process control. Covers automatic testing, computer interfacing, data collection, robotics, programmable logic controllers, and graphical process control software. A final project is an integrated system.

EET 381 Electrical Distribution Systems (4 cr.) Class 3, Lab 2. P: EET 212. Design and operation of industrial electric distribution systems. Estimated-demand calculations, faults on power systems, power factor improvement, electric rates, voltage drops, protective devices, illumination, and the applicable portions of the National Electrical Code.

EET 403 Data- and Telecommunications (4 cr.) Class 3, Lab 2. P: EET 284 or EET 303. Focus on techniques and applications in data- and telecommunications. Topics include telecommunication networks, various digital communication systems, noise performance, data networks, and protocols. Also included are serial and parallel transmission, multiplexing, modems, interfacing, and trouble-shooting techniques. The laboratory covers both analog and digital/data communications circuits.

EET 417 Analog and Digital Circuits (4 cr.) Class 3, Lab 3. P: EET 155 and EET 204. A study of analog and digital devices: memory systems, multiplexing, finite-state machine analysis and design, A/D and D/A conversion, field programmable gate arrays (FPGA), and complex programmable logic using VHDL. An overview of EMC compliances is also discussed.

EET 434 PC Systems II (4 cr.) Class 3, Lab 2. P: EET 234, CPT 262. Real-time PC-based operating systems. Programming Graphical User Interface in C++. Embedded PC hardware, busses, and peripheral programming. Writing and integrating device drivers.

EET 453 Topics in Telecommunications (4 cr.) Class 3, Lab 2. P: EET 403. An advanced course in telecommunications that introduces and evaluates state-of-the-art systems, services, and applications for current and emerging networking technologies.

EET 472 Automatic Control Systems (4 cr.) Class 3, Lab 2. P: EET 302 and EET 307. The transfer function approach to the study of feedback control systems. Feedback control system performance and stability. Routh, Nyquist, Bode, and root-locus methods of analysis and design including cascade and feedback compensation. Analog and digital simulation. An introduction to state-space analysis and to digital control systems.

EET 483 Industrial Local Area Networks (4 cr.) Class 3, Lab 2. P: EET 204 and EET 205. A study of computer networks and industrial network applications. Network protocols, media, and software are examined. Laboratory assignments consist of using utilities to examine network protocols, configuring network software, using test equipment for analyzing and troubleshooting networks, and writing programs in C programming language that interface with networks.

EET 490 Senior Design Project, Phase I (2 cr.) P: Two EET 300-level or above technical electives. P or C: TCM 220. Extensive individual design and development performed in consultation with faculty. Collaboration with industry is encouraged. Evidence of extensive and thorough laboratory work is required. Capstone experiences are required.

EET 491 Senior Design Project, Phase II (2 cr.) P: EET 490. A continuation of EET 490.

EET 499 Electrical Engineering Technology (1-9 cr.) Class 0-4, Lab 3-9. Hours and subject matter to be arranged by staff.

EET Employment Enrichment Programs

EET C291, C292, C393, C394, and C395 Cooperative Education Practice I-V (1-5 cr.) P: Sophomore standing and program advisor approval. A semester or summer of external, full-time, related career experiences designed to enhance the student's academic program and intended career with a business, industry, or government agency. A comprehensive written report on the practice is required.

EET I291, I292, I393, I394, and I395 Career Enrichment Internship I-V (1-5 cr.) P: Sophomore standing and program advisor approval. A semester or summer of external, full-time, related career experiences designed to enhance the student's readiness for entering an initial or a second career. A comprehensive written report on the internship experience is required.

EET E291, E292, E393, E394, and E395 Employment Enrichment Experience I-V (1-5 cr.) P: Sophomore standing and program advisor approval. A semester or summer of external, full- or part-time, related employment enrichment experiences designed to enhance the student's academic program and intended career with a business, industry, or government agency. A comprehensive written report on the enrichment experience is required.

Industrial Engineering Technology (IET)

IET 104 Industrial Organization (3 cr.) Class 3. A detailed survey of organizational structure: operations, finances, marketing, accounting, management, planning, control, personnel, quality, safety, wages, policy, and the human factors necessary for effective management.

IET 150 Quantitative Methods for Technology (3 cr.) Class 3. P: MATH 151. Application of statistical techniques to typical problems in technology. Topics include data collection, descriptive statistics calculation, hypothesis testing, sampling, continuous and discrete distribution, probability, ANOVA, and related topics. The course also introduces the use of spreadsheet and other software to solve statistical calculations. Introduction to SPC is included. Basic metrology, concepts of gage and meter calibration calculations, instrument linearity, repeatability, reproducibility, sensitivity, precision, and instrument control are included.

IET 204 Maintaining Quality (3 cr.) Class 2, Lab 2. P: MATH 153 and MATH 154, or MATH 151. An analysis of the basic principles of quality control. Includes statistical aspects of tolerances; basic concept of probabilities; frequency distribution; X and R charts; and uses of mechanical, electronic, air, and light devices for checking and measuring levels of quality acceptance.

IET 240 Quality Techniques for Electronics Manufacturing (3 cr.) P: IET 150. Survey of contemporary quality concepts and techniques. Topics include total quality management philosophy, process improvement, vendor certification, quality systems, ISO 9000 documentation, electronics industry quality applications, SPC, introduction to design experiments, basic reliability concepts, testing, and related topics. Team approaches to quality improvement and the application of the basic quality tools to improve processes are covered.

IET 300 Metrology for Quality Assurance (3 cr.) Class 2, Lab 2. P: MET 105 and MATH 151 or equivalent. An analysis of the basic principles of linear and geometric dimensional metrology. Topics include basic measuring instruments; mechanical, electronic, pneumatic, and optical measuring instruments; quality data acquisition systems; coordinate measuring machines; attribute gaging; geometric functional gaging; surface integrity determination; and geometric profile measurement.

IET 301 Cost Evaluation and Control (3 cr.) Class 3. Designing, installing, and improving standard cost systems in industry, including the establishment of basic standards. Development of the mechanics of operating control reports using principles of management by exception. Emphasis on use of electronic data processing for establishing and analyzing production cost standards.

IET 340 Industrial Procurement (3 cr.) Class 3. The study of modern purchasing in a manufacturing firm, with emphasis on industrial organization, quantity and quality analysis, sources, legal requirements, and related topics. Includes case discussion and analysis.

IET 350 Engineering Economy (3 cr.) Class 3. P: MET 105. Examines the concepts and techniques of analysis useful in evaluating the worth of systems, products, and services in relation to their cost. The objective is to help students grasp the significance of the economic aspects of engineering and to become proficient in the evaluation of engineering proposals in terms of worth and cost. Project analysis will require computer proficiency. Not open to students who have credit for IET 250.

IET 364 Total Quality Control (3 cr.) Class 3. The course is aimed at determining customer needs and wants, interpreting these into a design during production, follow-up on field performance, and feeding back quality information to further improve the quality system.

IET 374 Nondestructive Testing (3 cr.) Class 2, Lab 2. Study of industrial X-ray and ultrasonic inspection, surface penetrant inspection, magnetic particle and holography applications, and laser interferometry.

IET 454 Statistical Process Control (3 cr.) Class 3. P: IET 150. Design and analysis of statistical process control charts and industrial sampling plans. Not open to students who have credit for IET 354.

IET 474 Quality Improvement of Products and Processes (3 cr.) Class 3. P: IET 454 or consent of instructor. Introduction to experimental design to improve products or processes. Topics include fractional factorial experiments, response curves, experimental noise, orthogonal arrays, and ANOVA. DOE using classical and Taguchi techniques. Introduction to QFD, FEMQ, and Six Sigma for quality improvements.

Interior Design (INTR)

INTR 103 Introduction to Interior Design (3 cr.) Class 3. An overview of the field of interior design, its history, and theory. An application of the principles and elements of interior design. Basic hand drafting is included.

INTR 124 Space Planning for Interiors (3 cr.) Class 2, Lab 2. P: INTR 103. Introduction to the fundamentals of design for human activity, standards for space, programming, and graphic communication. Requirements for ADA and Universal Design will be included.

INTR 125 Color and Lighting of Interiors (3 cr.) Class 2, Lab 2. Exploration of the physiological, psychological, and phenomenal aspects of color and light in interior spaces. Application includes specification and selection of lighting fixtures and light sources.

INTR 151 Textiles for Interiors (3 cr.) Class 3. C: INTR 103. An extensive study of textiles: fiber types, yarn production, fabric construction, finishing, coloring, and printing. Application of textiles for use in residential and commercial interiors.

INTR 202 Interior Materials and Applications (3 cr.) Class 2, Lab 2. P: INTR 103 and INTR 151. Analyzes information related to use of surfacing materials applied as interior finishes in interior design

projects. The role of green design is introduced, and ecological issues are integrated into each category of materials analyzed.

INTR 204 History of Interiors and Furniture (3 cr.) Class 3. P: INTR 103. A survey of historical development of interiors, furniture, and decorative arts from early history to the present. Emphasis is on design motifs, ornamentation, and furniture styles. Adaptation and use of period styles within contemporary design are included.

INTR 224 Residential Interior Design Studio (3 cr.) Class 2, Lab 2. P: INTR 124. C: INTR 202. This studio class will emphasize the design of residential space, recognizing design development as a process. Space design, working drawings, plans, and client presentations also will be covered. The course will utilize computer-aided drafting and design (CAD).

INTR 225 Three-Dimensional Interior Design Studio (3 cr.) Class 1, Lab 4. C: INTR 202. This studio class includes the fundamentals of three-dimensional design and drawing. Model building techniques will be taught as students design a piece of furniture that is functional, ergonomic, and aesthetic.

INTR 226 Commercial Interior Design Studio (3 cr.) Class 2, Lab 2. P: INTR 202. C: INTR 252. This studio course emphasizes the elements used in development of nonresidential space. Studies include technological and building requirements; building and life-safety codes; square footage and space planning standards.

INTR 228 Interior Design for Contemporary Issues and Needs (3 cr.) Class 1, Lab 4. P: INTR 224. C: INTR 226. A capstone course offered in the fourth semester of the program. Design projects will include green or sustainable design; design for elderly and disabled clients, homeless and abused persons, and others.

INTR 252 Interior Building Systems (3 cr.) Class 3. P: INTR 202. A survey course of building systems that covers the design implications of heating, air-conditioning, plumbing, and electrical systems of both residential and commercial buildings.

INTR 253 Business Practices of Interior Design (3 cr.) Class 3. P: INTR 202 and INTR 224. Introduction to business principles and practices as they relate to the interior design profession. Includes business formation and management, professional ethics and organizations, certification and licensing issues, design liability, and project management.

INTR 290 Interior Design Experience (1 cr.) P: Consent of instructor. Minimum of 10 weeks of work experience in the interior design field. Written report of the experience.

Mechanical Engineering Technology (MET)

MET 102 Production Design and Specifications (3 cr.) Class 1, Lab 5. P: TG 110. The design, evaluation, and documentation of engineering specifications required for manufacturability and assembly are introduced. Emphasis is on CAD-based

details, assemblies, design layouts, equipment installations, and related industrial practices.

MET 105 Introduction to Engineering Technology (3 cr.) Class 2, Lab 3. This course provides beginning engineering technology students with the basic tools necessary for success in their chosen technology degree program. Topics include survey of engineering technology careers, technology laboratories and report writing, use of calculators, engineering calculations, metrology, technology computer applications, use of spreadsheets for engineering calculations. Major emphasis on computer applications and QBASIC.

MET 111 Applied Statics (3 cr.) Class 3. P: MATH 151 and MET 105 or equivalent. A study of force systems, resultants and equilibrium, trusses, frames, centroids of areas, center of gravity of bodies.

MET 112 Applied Mechanisms (3 cr.) Class 3; or Class 1, Lab 5. P: TG 110 and MATH 151 or equivalent. An analysis of motions, displacements, velocities, instant centers, cams, linkages, and gears.

MET 141 Materials I (3 cr.) Class 2, Lab 2. An overview of structures, properties, and applications of metals, polymers, ceramics, and composites commonly used in industry is presented. Problem-solving skills are developed in the areas of materials selection, evaluation, measurement, and testing.

MET 142 Manufacturing Processes I (3 cr.) Class 2, Lab 3, or Class 3. P: MET 141. Basic casting, forming, and joining processes are surveyed. The course emphasizes the selection and application of various processes.

MET 211 Applied Strength of Materials (4 cr.) Class 3, Lab 2 or Class 4. P: MET 111, and MET 163 or MET 160. C: MATH 221. The principles of strength, stiffness, and stability are introduced and applied primarily to mechanical components.

MET 212 Applications of Engineering Mechanics (4 cr.) Class 4. Does not carry credit toward graduation in mechanical engineering technology. P: MATH 154. Applications of engineering mechanics are introduced, based on an elementary expansion of Newtonian physics as applied to static and dynamic force systems. Internal stresses and strains produced by these forces in selected machine elements are considered. Work, energy, and power are discussed.

MET 213 Dynamics (3 cr.) Class 2, Lab 2 or Class 3. P: MET 111. C: MATH 221. Kinematics and kinetics principles of rigid-body dynamics are introduced. Emphasis is on the analysis of bodies in plane motion.

MET 214 Machine Elements (3 cr.) Class 3. P: MET 211 and PHYS 218. The theories and methods of statics, dynamics, and strength of materials applied to the selection of basic machine components. The course will develop the fundamental principles required to select the individual elements making up a machine.

MET 220 Heat/Power (3 cr.) Class 2, Lab 2 or Class 3. P: PHYS 218. Heat/Power is an introduction to the principles of thermodynamics and heat transfer. Basic thermodynamic processes are used to evaluate the performance of energy-based systems such as internal combustion engines, power plants, and refrigeration equipment.

MET 230 Fluid Power (3 cr.) Class 2, Lab 2 or Class 3. P: MET 111 or PHYS 218. This course consists of the study of compressible and incompressible fluid statics and dynamics as applied to hydraulic and pneumatic pumps, motors, transmissions, and controls.

MET 240 Basic Foundry (3 cr.) Class 2, Lab 2. P: MET 141 and MET 142. Casting processes of the past, present, and future. Special emphasis on developing problem-solving skills in using cast parts in manufacturing. Lectures, reading assignments, audiovisual presentations, demonstrations, and field trips. Assignment sheets with study questions are used in preparing students for discussion sessions and tests. Each student must also research and write a five-page paper on some aspect of the foundry industry or give a demonstration in the laboratory.

MET 242 Manufacturing Processes II (3 cr.) Class 2, Lab 2 P: MET 141, MATH 151 or 154 or MET 162, CPT 135 or MET 163. This course surveys the manufacturing processes and tools commonly used to convert cast, forged, molded, and wrought materials into finished products. It includes the basic mechanisms of material removal, measurement, quality control, assembly processes, safety, process planning, and automated manufacturing. Not open to students having credit for MET 135 or MET 281.

MET 271 Programming for Numerical Control (3 cr.) Class 2, Lab 2. P: MET 242 and MATH 151 or consent of instructor. An introduction to manual, conversational, and computer-aided programming. Incremental and absolute programming systems. Machine-based conversational languages and computer-aided programming languages.

MET 282 Introduction to Plastics (3 cr.) Class 2, Lab 3. P: MET 141 and MET 142. A survey of the plastics industry, including a study of materials with reference to their properties, processing, and uses. Fabrication, finishing, and fastening methods; plastic product design.

MET 299 Mechanical Engineering Technology (1-3 cr.) Class 0-3, Lab 0-9. Hours and subject matter to be arranged by staff. Primarily for third- or fourth-semester students with special aptitudes. Course may be repeated for up to 9 credit hours.

MET 310 Computer-Aided Machine Design (3 cr.) Class 2, Lab 2. P: MET 214 and MET 105. Introduction to the use of specialized programs to analyze machine components such as shafts, linkages, springs, and cams. Use of finite element analysis to analyze mechanical systems.

MET 320 Applied Thermodynamics (3 cr.) Class 3. P: MET 220 and MATH 221. Following a review of fundamental concepts, advanced power and refrigeration cycles are analyzed. Applications such as gas mixtures, air-vapor mixtures, and chemical reactions of combustion processes are presented.

MET 328 CAD/CAM for Mechanical Design (3 cr.) Class 2, Lab 2 plus 3 arranged. P: TG 110 and MET 105 or equivalent. Basic operation of mechanical design-drafting. A PC CAD (2D and 3D) laboratory-centered course introducing the basic steps involved in the geometric design of mechanical parts. This class provides an overview and continues into a

detailed investigation of parametric modeling. Parametric modeling concepts will be applied to problems using standard industrial practices. Students must possess a solid background in engineering or technical graphics.

MET 340 Piping and Plumbing Design (3 cr.) Class 3. P: MET 220. Design of plumbing systems, including losses in pipes, fittings, nozzles, orifices, etc. Includes steam, water, and oil systems. Piping handbooks and catalogs are used in conjunction with the State of Indiana Plumbing Code.

MET 344 Materials II (3 cr.) Class 3. P: MET 141 and CHEM 111. Metals and polymers are studied. Topics include the bonding of atoms; the structures of crystals and polymers; the coldworking, alloying, and heat treating of metals; and the physical behavior of plastics. Course emphasis is on the development and control of material properties to meet engineering requirements and specifications.

MET 350 Applied Fluid Mechanics (3 cr.) Class 3. P: MET 220 and MET 111. The fundamentals of fluid mechanics, including properties of fluids; pressure; hydrostatic force on submerged areas; kinematics and dynamics of fluid flow; friction and sizing of pipes; selection of pumps.

MET 360 Heating, Ventilating, and Air Conditioning I (3 cr.) Class 3 or Class 2, Lab 2. P: MET 220. Investigation of basics required to design heating and ventilating systems. Heat loss, humidification, duct design, equipment selection, and solar heating. Codes and standards emphasized.

MET 374 Technical Sales (3 cr.) Class 3. A study of the principles and practices of selling technical products and/or services. The course covers product knowledge, buying motives, the phases of a sale, ethical and legal aspects, synergistic selling, and career opportunities in technical sales. Utilizes role playing.

MET 384 Instrumentation (3 cr.) Class 2, Lab 3. P: MATH 221, PHYS 219, IET 150, and MET 350. Introduction to the basic concepts and terminology of instruments. Procedures and techniques essential to industrial measurement and transmission of data. Emphasis on pressure, flow, temperature, level measurements, and computer control.

MET 414 Design of Mechanical Projects (3 cr.) Class 1, Lab 4. P: MET 102, MET 214, MET 230, and EET 302. Application of the fundamental principles of mechanical, hydraulic, and electrical technology to the design of mechanical systems. Discussion of the design process and continuation of topics in the design of machine elements. A semester design project is required.

MET 426 Internal Combustion Engines (3 cr.) Class 2, Lab 3. P: MET 220. A study of the spark ignition, compression ignition, and continuous-burning internal combustion engines.

MET 428 Advanced CAD for Mechanical Design and Drafting (3 cr.) Class 2, Lab 3. P: MET 328 or equivalent. Mechanical and geometric modeling of

complex surfaces, with manufacturing emphasis using wire-frame and shaded imaging techniques.

MET 497 Senior Project (3 cr.) Class 2, Lab 2. Directed work on individual projects for senior mechanical technology students.

MET 499 Mechanical Engineering Technology (1-4 cr.) Class 0-4, Lab 0-9. Hours and subject matter to be arranged by staff. Course may be repeated for up to 9 credit hours.

MET Employment Enrichment Programs

MET C198, C298, C398, C496, and C498 Cooperative Education Practice I-V (1-5 cr.) P: Sophomore standing and program advisor approval. A semester or summer of external, full-time, related career experiences designed to enhance the student's academic program and intended career with a business, industry, or government agency. A comprehensive written report on the practice is required.

MET I198, I298, I398, I496, and I498 Career Enrichment Internship I-V (1-5 cr.) P: Sophomore standing and program advisor approval. A semester or summer of external, full-time, related career experiences designed to enhance the student's readiness for entering an initial or a second career. A comprehensive written report on the internship experience is required.

MET E198, E298, E398, E496, and E498 Employment Enrichment Experience I-V (1-5 cr.) P: Sophomore standing and program advisor approval. A semester or summer of external, full or part-time, related employment enrichment experiences designed to enhance the student's academic program and intended career with a business, industry, or government agency. A comprehensive written report on the enrichment experience is required.

Organizational Leadership and Supervision (OLS)

OLS 100 Introduction to Organizational Leadership and Supervision (1 cr.) Class 1. This class offers a general introduction to the OLS program. It also covers the purposes and practices relevant to front-line supervisors, managers, and leaders at all organizational levels. Students are given an opportunity to meet the OLS faculty, learn about OLS degrees, related technology courses, and other general education and elective classes.

OLS 110 Supervisory Leadership: Story Problems (1 cr.) Class 1. This course develops skills in leadership. Specific areas covered include planning and change, problem analysis and decision making, motivation, interpersonal communication, giving and receiving feedback on performance, organizational values, and human relations.

OLS 252 Human Behavior in Organizations (3 cr.) Class 3. Study of individual and group behavior in organizations. Special emphasis on typical supervisory relationships.

OLS 263 Ethical Decisions in Leadership (3 cr.) Class 3. P: ENG W131 or equivalent. This class is for students interested in discussing and contemplating the difficult legal and ethical situations facing managers in all sizes and types of organizations. Students in this class will read and discuss a variety of writings on ethics in the workplace and also analyze both written and videotaped legal/ethical scenarios.

OLS 274 Applied Leadership (3 cr.) Class 3. Introduction to and overview of the fundamental concepts of supervision. Emphasis on the supervisor's major functions and essential areas of knowledge, relations with others, and personal development.

OLS 327 Leadership for a Global Workforce (3 cr.) Class 3. P: OLS 252, OLS 274, ENG W131, COMM R110 or consent of the OLS department. This course is for present and future leaders interested in the increasingly diverse global workforce. The course will present a variety of leadership issues including expatriate assignments, international business strategies and their cultural and managerial impact, and a review of business practices around the world.

OLS 328 Principles of International Management (3cr.) Class 3. P: OLS 327. This course is a survey of issues relating to international management and international enterprise. The goal is to help students understand the principles and practices involved in managing across national boundaries so that they can be more effective leaders and managers—both domestically and internationally.

OLS 331 Occupational Safety and Health (3 cr.) Class 3. Aspects of occupational safety and health that are essential to the first line supervisor. Emphasis on economic, legal, and social factors related to providing a safe and healthful working environment.

OLS 368 Personnel Law (3 cr.) Class 3. This course covers topics such as discrimination based on sex, age, national origin, or handicap; recruitment and selection; affirmative action; rights of union and nonunion employees; Fair Labor Standards Act; Equal Pay Act and comparable worth; employee benefits plans; unemployment compensation; and right to discharge.

OLS 371 Project Management (3 cr.) Class 3. P: ENG W131. This course provides the basics of the project management discipline and allows the student to apply these skills in team-based situations.

OLS 373 Case Studies in Leadership (3 cr.) Class 3. P: OLS 252 or consent of instructor. Analysis of selected case studies with emphasis on attitudes, philosophies, and responsibilities of leaders in relationship to peers, followers, and superiors.

OLS 375 Training Methods (3 cr.) Class 3. P: OLS 252 and OLS 274, or consent of department chair. This course teaches the fundamentals of the design facilitation and evaluation of formal training and development programs. Understanding the way people learn jobs skills is emphasized.

OLS 376 Personnel Supervision (3 cr.) Class 3. P: OLS 374 or consent of instructor. Analysis of selected case problems, with emphasis on attitudes, philosophies, and responsibilities of supervisory personnel in relationship to the worker.

OLS 378 Labor Relations (3 cr.) Class 3. This course teaches the regulations concerning management, labor, the collective bargaining agreement, and grievance and arbitration procedures.

OLS 383 Human Resource Management (3 cr.) Class 3. This course teaches an overview of the human resource function in organizations today. Case studies are used to explore applications of human resource principles.

OLS 390 Leadership Theories and Processes (3 cr.) Class 3. P: OLS 100, OLS 252, OLS 263, OLS 274; ENG W131. C: OLS 327, 378; COMM R110, TCM 220. This course integrates knowledge and skills from all associate level OLS courses and allows students to define, reflect upon, and improve their leadership abilities.

OLS 399 Special Topics (1-9 cr.) Hours and subject matter to be arranged by staff. Primarily for upper-division majors with specific interests and aptitudes. May be repeated for up to 6 credit hours.

OLS 410 Survival Skills in Organizational Careers (3 cr.) Class 3. P: Within 30 credit hours of a bachelor's degree or consent of instructor. Focuses on the organization as a social system within which careers develop through the reciprocal influences of organization and people. Examines how occupations are chosen, the stages of an unfolding career, and factors that influence successful careers. Emphasizes coping with change and developing personal strategies.

OLS 476 Compensation Planning and Management (3 cr.) Class 3. Focuses on the management of employee compensation. Examines the current state of compensation management and implications of recent theoretical and research developments related to compensation decisions. Gives each student the opportunity to develop a compensation package.

OLS 479 Staffing Organizations (3 cr.) Class 3. A detailed look at the recruiting function of organizations to give the student a sense of the challenges of recruiting qualified employees.

OLS 487 Leadership Philosophy (3 cr.) Class 3. P: OLS 252, OLS 274/374. This course facilitates the understanding and practice of various leadership roles required in supervisory situations. Students, through applying group dynamics and leadership theory, will develop new skills, capabilities, and understandings. Students will have fundamental shifts in their thinking about traditional leadership and in their ability to function in new leadership styles.

OLS 490 Senior Research Project (3 cr.) P: Senior standing. Individual members of this seminar-type class study problems or areas of their own choosing in the field of leadership.

OLS Employment Enrichment Programs

OLS C196, C198, C298, C398, and C498 Cooperative Education Practice I-V (1-5 cr.) P: Sophomore standing and program advisor approval. A semester or summer of external, full-time, related career experiences designed to enhance the student's academic program and intended career with a

business, industry, or government agency. A comprehensive written report on the practice is required.

OLS 1196, 1198, 1298, 1398, and 1498 Career Enrichment Internship I-V (1-5 cr.) P: Sophomore standing and program advisor approval. A semester or summer of external, full-time, related career experiences designed to enhance the student's readiness for entering an initial or a second career. A comprehensive written report on the internship experience is required.

OLS E196, E198, E298, E398, and E498 Employment Enrichment Experience I-V (1-5 cr.) P: Sophomore standing and program advisor approval. A semester or summer of external, full- or part-time, related employment enrichment experiences designed to enhance the student's academic program and intended career with a business, industry, or government agency. A comprehensive written report on the enrichment experience is required.

OLS 327 Leadership for a Global Work Force (3 cr.) Class 3. P: None. This course is for present/future managers interested in the increasingly diverse global workforce. The course will present a variety of leadership issues including expatriate assignments, international business strategies and their cultural and managerial impact, and a review of business practices around the world.

Other Technology Courses

Technical Communications (TCM)

TCM 220 Technical Report Writing (3 cr.) Class 3. P: ENG W131 or equivalent. Extensive application of the principles of clear writing in industrial reporting, with emphasis on adaptation to the audience; organization of ideas; and a concise, objective writing style.

TCM 320 Written Communication in Science and Industry (3 cr.) Class 3. P: ENG W131 or equivalent; junior standing or consent of instructor. Analysis of current writing practices in technology and science, especially in organizational settings. Practice in designing and preparing reports for a variety of purposes and audiences.

TCM 340 Correspondence in Business and Industry (3 cr.) Class 3. P: ENG W131 or equivalent. The development and application of strategies and skills for writing letters for business and industry in technology and engineering. Applications may include resumes and letters of application, informational and persuasive letters, and in-house memoranda.

TCM 350 Visual Elements of Technical Documents (3 cr.) Class 3. P: TCM 220, TCM 320 or consent of instructor. Methods and principles of illustrating technical reports and manuals, the role of the technical writer in the company, basics of visual design, visuals for manuals, visualization of technical data, and modern technology available to technical writers.

TCM 360 Communication in Engineering Practice (2 cr.) Class 1, Recitation 2. P: ENG W131 and COMM R110 or equivalents; junior standing or

consent of instructor. The application of rhetorical principles to written and oral communication in the engineering professions. Planning, drafting, and revising professional engineering reports; planning and delivering oral presentations; organizing information; developing persuasive arguments.

TCM 370 Oral Practicum for Technical Managers (3 cr.) Class 3. P. COMM R110 with a grade of C or better. The practical application of effective listening and speaking skills in situations typical for managers and supervisors in technology and engineering. Applications may include one-to-one conversations in supervisory management, such as hiring interviews and performance reviews; technical training programs; group discussions in work units, committees, and task forces; informal presentations, including program and status reports; formal technical presentations; communication in international industrial environments.

TCM 399 Issues in Technical Communication (1-6 cr.) Hours and subject matter to be arranged by staff. May be repeated for up to 6 credit hours.

TCM 460 Engineering Communication in Academic Contexts (2 cr.) Class 1, Recitation 2. P. ENG W131 and COMM R110 or equivalents; senior or graduate standing or consent of instructor. Analysis of situations and genres of written and oral communication of engineering information in academic contexts. Application of rhetorical principles in preparing and delivering written and oral presentations of engineering information.

School of Engineering and Technology Faculty

Administrative Officers

H. Öner Yurtseven, Dean

Nasser Paydar, Associate Dean for Academic Programs

Patricia L. Fox, Assistant Dean for Administration and Finance

Thomas I. M. Ho, Chair of the Department of Computer Technology

Erdogan Sener, Chair of the Department of Construction Technology

Russ Eberhart, Chair of the Department of Electrical and Computer Engineering

Marvin A. Needler, Chair of the Department of Electrical and Computer Engineering Technology

Hasan Akay, Chair of the Department of Mechanical Engineering

Kenneth E. Rennels, Chair of the Department of Mechanical Engineering Technology

Clifford Goodwin, Chair of the Department of Organizational Leadership and Supervision

Edward Berbari, Director of Biomedical Engineering Program

Resident Faculty

Acheson, Douglas, *Assistant Professor of Computer Graphics Technology* (1997); B.S. *Technical Graphics*, 1993, *Purdue University*; M.S. *Educational Computing*, 1995, *Purdue University*
Afolabi, Dare, *Associate Professor of Mechanical Engineering* (1985); B.S. *Mechanical Engineering*, 1976, *Thames Polytechnic, United Kingdom*; M.S. *Acoustics and Vibration Technology*, 1978, Ph.D. *Mechanical Engineering*, 1982, *Imperial College, United Kingdom*

Akay, Hasan U., *Professor of Mechanical Engineering and Chair of the Department of Mechanical Engineering* (1981); B.S. *Civil Engineering*, 1967, *Middle East Technical University, Turkey*; M.S. *Civil Engineering*, 1969, Ph.D. *Civil Engineering*, 1974, *University of Texas at Austin*

Ben-Miled, Zina, *Assistant Professor of Electrical Engineering* (1998); B.S. *Computer Engineering*, 1988, *Oregon State University*; M.S. *Computer Engineering*, 1990, Ph.D. *Computer Engineering*, 1997, *Purdue University*

Berbari, Edward, *Professor of Electrical Engineering, Director of Biomedical Engineering Program, and Professor of Medicine* (1994); B.S.E.E. *Electrical Engineering*, 1971, *Carnegie-Mellon University*; M.S. *Biomedical Engineering*, 1973, *University of Miami*; Ph.D. *Electrical Engineering*, 1980, *University of Iowa*
Bluestein, Maurice, *Associate Professor of Mechanical Engineering Technology* (1991); B.S. *Mechanical Engineering*, 1962, *City College of New York*; M.S. *Mechanical Engineering*, 1964, *New York University*; Ph.D. *Biomedical Engineering*, 1967, *Northwestern University*

Boje, Carmen, *Assistant Professor of Computer Technology* (2001); M.S., *Electronics and Telecommunications Engineering*, 1985, *Polytechnic Institute of Bucharest, Hungary*; M.S., *Telecommunications and Multimedia Applications*, 1998, *Polytechnic Institute of Turin, Italy*

Botner, Ron, *Lecturer in Architectural Technology* (1997); B.A. *Architecture*, 1960, *University of Illinois*; M.S. *Indiana Wesleyan University*; *Registered Architect, Indiana*

Chen, Jie, *Professor of Mechanical Engineering, Associate Professor of Orthodontics, School of Dentistry* (1990); B.S. *Mechanical Engineering*, 1982, *Tianjin University, China*; M.S. *Biomedical Engineering*, 1984, *Shanghai Second Medical College, China*; Ph.D. *Mechanical Engineering*, 1989, *Drexel University*

Chen, Yaobin, *Professor of Electrical Engineering* (1990); B.S. *Electrical Engineering*, 1982, *Nanjing Institute of Technology, China*; M.S. *Electrical Engineering*, 1986, Ph.D. *Electrical Engineering*, 1988, *Rensselaer Polytechnic Institute*

Chien, Y. P. Stanley, *Professor of Electrical Engineering* (1989); B.S. *Electrical Engineering*, 1984, *University of Wisconsin*; M.S. *Electrical Engineering*, 1985, Ph.D. *Electrical and Computer Engineering*, 1989, *Purdue University*

Christe, Barbara, *Assistant Professor of Electrical Engineering Technology* (1998) and *Director of Biomedical Electronics Technology Program* (1998); B.S. *Engineering*, 1984, *Marquette University*; M.S. *Clinical Engineering*, 1986, *Rensselaer at Hartford*

Clark, Jerome A., *Lecturer in Computer Technology* (1999); B.S. *Computer Technology*, 1992, *IUPUI*; M.S. *Management* 1996, *Indiana Wesleyan University*

Coles, Elizabeth A., *Assistant Professor and Coordinator of Interior Design* (1997); B.S. *Textiles*, *University of Maryland*, 1968, M.S. *Adult Education and Gerontology*, *Iowa State University*, 1975, M.S. *Interior Design*, *Colorado State University*, 1997

Conrad, William, *Professor of Electrical Engineering Technology* (1991); B.S.E.E., 1966, *Purdue University*; M.Eng., *General Engineering*, 1968, *Pennsylvania State University*; P.E., *Indiana*

Cooney, Elaine, *Associate Professor of Electrical Engineering Technology* (1988); B.S.E. *Electrical Engineering*, 1984, *General Motors Institute*; M.S.E.E. 1986, *Purdue University*

Cyr, Daphene E. *Assistant Professor of Construction Technology* (2001); B.S. *Building Construction Management*, 1990, Ph.D. *Education*, 2001, *Purdue University*

Defazio, Joseph M., *Assistant Professor of Computer Technology and Informatics* (1999); B.A. *Music Performance*, 1995, B.S. *Applied Computer Technology*, 1993, M.S. *Applied Computer Technology*, 1995, *Indiana State University*

Eberhart, Russell, *Professor of Electrical Engineering and Chair of the Electrical and Computer Engineering Department* (2001); B.S. *Electrical Engineering*, 1965, M.S. *Electrical Engineering*, 1969, Ph.D. *Electrical Engineering*, 1972, *Kansas State University*

Ecer, Akin, *Professor of Mechanical Engineering* (1979); B.S. *Civil Engineering*, 1966, M.S. *Civil Engineering*, 1967, *Middle East Technical University, Turkey*; Ph.D. *Engineering*, 1970, *University of Notre Dame*

El-Mounayri, Hazim, *Assistant Professor of Mechanical Engineering* (1997); B.S. *Mechanical Engineering*, 1989; M.Sc. *Material Science*, 1992, *The American University in Cairo*; Ph.D. *Mechanical Engineering*, 1997, *McMaster University, Canada*

El-Sharkawy, Mohamed, *Professor of Electrical Engineering* (1992); B.S. *Electrical Engineering*, 1974, M.S. *Electrical Engineering*, 1979, *Alexandria University, Egypt*; Ph.D. *Electrical Engineering*, 1985, *Southern Methodist University*

Feldhaus, Charles, *Assistant Professor of Organizational Leadership and Supervision* (2001) B.A. *Radio and Television*, 1979, *University of Southwestern Louisiana*; M.S. *Secondary Education*, 1985, *Indiana University*; Ed.D. *Educational Administration/Supervision*, 1999, *University of Louisville*

Fernandez, Eugenia, *Assistant Professor of Computer Technology* (1996); B.S. *Mechanical Engineering*, 1979, *Worcester Polytechnic Institute*; M.S.E. *Computer, Information and Control Engineering*, 1984, *University of Michigan*; Ph.D. *Management Information Systems*, 1988, *Purdue University*

Fox, Patricia L., *Assistant Dean for Administration and Finance and Assistant Professor of Organizational Leadership and Supervision* (1983); B.S. *Accounting*, *Indiana University*, 1980; M.B.A., 1985, *Butler University*

- Frettinger-Devor, Sally A., Assistant Professor of Industrial Engineering Technology (2001); B.S. Industrial Engineering, 1991, Purdue University
- Gee, Patrick, Lecturer in Freshman Engineering; B.S. Mechanical Engineering, Purdue University, 1992; M.S. Mechanical Engineering, 1998, Purdue University
- Gokhale, Sanjiv, Assistant Professor of Construction Technology (1991); B.S. Civil Engineering, Indian Institute of Technology, India 1981; M.S. Structural Engineering, Vanderbilt University, 1984; M. Phil. Applied Mathematics, 1990, Doctorate, Engineering Mechanics, 1991, Columbia University
- Goodwin, Clifford, Associate Professor and Chair of the Department of Organizational Leadership and Supervision (1979); A.A.S. Aviation Technology, 1969; B.S. Supervision, 1970, Purdue University; M.S. Education, 1980, Ball State University; Ed.D., 1997, Indiana University
- Ho, Thomas I. M., Professor of Computer Technology and Chair of the Department of Computer Technology (1995); B.S. Computer Science, 1970, M.S. Computer Science, 1971, Ph.D. Computer Science, 1974, Purdue University
- Hovde, Marjorie Rush, Assistant Professor of Technical Communications and Assistant Professor of English (1996); B.A. English Education, 1979, Eastern Mennonite College; M.A. English Expository Writing, 1984, University of Iowa; Ph.D. English Rhetoric and Composition 1994, Purdue University
- Hsu, Andrew T., Associate Professor of Mechanical Engineering (1999); B.S., Hydraulic Engineering, 1978, North China Institute of Hydro-Electrical Engineering, China; M.S., 1981, Tsinghua University, China; M.S. Aerospace Engineering, 1982, Ph.D. Aerospace Engineering, 1986, Georgia Institute of Technology
- Hundley, Stephen P., Assistant Professor of Organizational Leadership and Supervision (1997); B.S. Business Management, 1992, Virginia Commonwealth University; M.S. Human Resource Administration, 1994, Central Michigan University; M.Ed. Adult Education, 1995, Virginia Commonwealth University; Ph.D. Education/Organization Development, 1998, American University
- Jafari, Ali, Professor of Computer Technology (1995); B.S. Business Administration, 1978, University of Esfahan, Iran; M.S. Media Technology, 1981, University of Wisconsin-Stout; Ph.D. Telecommunication, 1988, Indiana University
- Katona, Thomas R., Associate Professor of Mechanical Engineering, School of Engineering and Technology, and Associate Professor of Orthodontics, School of Dentistry (1990); M.S. Mechanical Engineering, 1972, Ph.D. Mechanical Engineering, 1981, D.M.D. Dentistry, 1982, University of Pennsylvania
- Kim, Chul Soo, Assistant Professor of Construction Technology (2001); B. Architectural Engineering, 1982, Yonsei University, Korea; B.P.S. in Architecture, 1985, State University of New York; M. Architecture, 1987, University of Illinois; M.S. Civil Engineering, 1997, University of Illinois; Ph.D. Civil Engineering, 2001, University of Illinois
- King, Brian, Assistant Professor of Electrical and Computer Engineering (2001); B.A. Mathematics, 1982, University of Wisconsin; M.S. Mathematics, 1984, University of Wisconsin; Ph.D. Mathematics, 1990, University of Wisconsin; Ph.D. Computer Science, 2000, University of Wisconsin
- Kinsey, Brian D., Assistant Professor of Construction Technology (1980); B.S. Engineering Sciences, 1972, M.S.E. Mechanical Engineering, 1975, Purdue University; P.E., Indiana
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- Lamm, Nancy, Assistant Professor of Engineering and Director of Freshman Engineering (1987); A.B. Microbiology, 1969, Indiana University; B.S.E. Bioengineering, 1983, M.S.E. Interdisciplinary Engineering, 1989, Purdue University
- Lin, William, Associate Professor of Electrical Engineering Technology (1999); B.Ed. Science Education (Physics), 1976, National College of Education Taiwan; M.S., Physics, 1981, University of Southern Mississippi; Ph. D. Electrical Engineering, 1987, The Pennsylvania State University
- Lucas, Laura, Lecturer of Architectural Technology (1999); B.S. Architecture, 1981, Ball State University; M.B.A. Management, 1990, Indiana University, Registered Architect, Indiana
- Lyshevski, Sergey, Associate Professor of Electrical Engineering (1998); M.S. Electrical Engineering, 1980, Ph.D. Electrical Engineering, 1987, Kiev Polytechnic Institute, Ukraine
- McRobbie, Michael A. Professor of Computer Technology and Vice President for Information Technology (1997); B.A. 1975, University of Queensland, Australia; Ph.D. 1979, The Australian National University, Australia
- Nalim, Razi, Assistant Professor of Mechanical Engineering (1997); B.Tech. Mechanical Engineering, 1983, Indian Institute of Technology, India; M.S. Mechanical Engineering, 1985, Ph.D. Aerospace Engineering, 1994, Cornell University
- Needler, Marvin A., Professor of Electrical Engineering Technology and of Electrical Engineering, Chair of the Department of Electrical and Computer Engineering Technology (1964); B.S. Electrical Engineering, 1963, M.S. Electrical Engineering, 1964, Purdue University; Ph.D. Systems Science, 1971, Michigan State University; P.E., Indiana
- Orr, Robert H., Professor of Computer Technology (1985); B.S. Engineering Sciences, 1964, United States Military Academy; M.S. Information and Computer Science, 1973, Georgia Institute of Technology
- Paydar, Nasser, Associate Dean for Academic Programs, Professor of Mechanical Engineering, School of Engineering and Technology, and Professor of Preventive and Community Dentistry, School of Dentistry (1985); B.S. Mechanical Engineering, 1979, M.S. Mechanical Engineering, 1981, Ph.D. Mechanical Engineering, 1985, Syracuse University
- Pfife, Richard E., Professor of Electrical Engineering Technology (1983); B.S. Chemistry, 1974, B.S. Electrical Engineering, 1976, University of Louisville; M.S.E. Computer, Information, and Control Engineering, 1980, University of Michigan
- Pidaparti, Ramana M., Professor of Mechanical Engineering (1989); B.S. Civil Engineering, 1980, Andhra University, India; M.S. Aeronautical Engineering, 1982, Indian Institute of Science, India; M.S. Aerospace Engineering, 1985, University of Maryland; Ph.D. Aeronautics and Astronautics, 1989, Purdue University
- Price, Tim, Associate Professor of Computer Technology (1985); B.S. Electrical Engineering, 1978, Illinois Institute of Technology; M.S. Electrical Engineering, 1979, Georgia Institute of Technology
- Ramos, José A., Associate Professor of Electrical Engineering (1995); B.S.C.E. Civil Engineering, 1978, University of Puerto Rico at Mayaguez; M.S.C.E. Civil Engineering, 1979, Ph.D. System Theory and Control, 1985, Georgia Institute of Technology
- Reid, Kenneth, Assistant Professor of Electrical Engineering Technology (1996); B.S. Computer and Electrical Engineering, 1988, Purdue University; M.S.E.E., 1994, Rose Hulman Institute of Technology
- Rennels, Kenneth E., Associate Professor of Computer Integrated Manufacturing Technology, and Chair of the Department of Mechanical Engineering Technology (1986); B.S. Industrial Engineering, 1975, Purdue University; M.S.B.A. Management and Administrative Studies, 1979, Indiana University; P.E., Indiana
- Rizkalla, Maher E., Professor of Electrical Engineering (1986); B.S. Electrical Engineering, 1975, Assiut University, Egypt; M.S. Electrical Engineering, 1980, Cairo University, Egypt; Ph.D. Electrical Engineering, 1985, Case Western Reserve University
- Schild, John H., Assistant Professor of Electrical Engineering (1997); B.S. Biomedical Engineering, 1983, M.S. Biomedical Engineering, 1988, Case Western Reserve University; Ph.D. Electrical and Computer Engineering, 1994, Rice University
- Sener, Erdogan, Professor of Construction Technology and Chair of the Department of Construction Technology (1987); B.S. Civil Engineering, 1968, Middle East Technical University, Turkey; M.S. Civil and Structural Engineering, 1969, Michigan State University; P.E., Indiana
- Sinha, Akhouri S. C., Professor of Electrical Engineering (1977); B.S. Mathematics, 1957, Bihar University, India; B.S. Electrical Engineering, 1961, Banaras Hindu University, India; M.S. Electrical Engineering, 1966, Ph.D. Electrical Engineering, 1969, University of Missouri
- Starks, Joy, Assistant Professor of Computer Technology (1998); B.A. Theory and Composition, 1976, University of Missouri; B.S. Education, 1978, Southern Illinois University; M.A. Education, 1981, Southern Illinois University; Ph.D. Educational Technology, 2002, Purdue University

Stevens, Janis, *Lecturer in Computer Technology* (2000); B.S. Education, 1970, Bowling Green State University; M.S. Education, 1984, Butler University

Sullivan, Edward T., *Clinical Assistant Professor of Computer Technology* (1998); B.S. Economics, 1971, University of Kentucky; M.S.I. Industrial Administration, 1977, Purdue University

Tharp, Robert E., *Associate Professor of Mechanical Engineering Technology* (1969); A.A.S. Mechanical Engineering Technology, 1960, B.S. Industrial Education, 1965, M.S. Industrial Education, 1968, Purdue University; C.Mfg.E.

Turner, Charles H., *Professor of Mechanical Engineering and Associate Director of Biomedical Engineering, School of Engineering and Technology, and Professor of Orthopaedic Surgery, School of Medicine* (1991); B.S. Mechanical Engineering, 1983, Texas Tech University; Ph.D. Biomedical Engineering, 1987, Tulane University

Wilkins, Harriet A., *Associate Professor of Technical Communications* (1983), and *Associate Professor of English* (1996); B.A. English, 1959, College of Emporia; M.A. Linguistics, 1975, Louisiana State University; Ph.D. Language Education, 1991, Indiana University

Williamson, David M., *Assistant Professor of Computer Technology* (1986); B.S. Science, 1967, Purdue University; Ed.M. Education, 1974, University of Illinois; A.A.S. Computer Technology, 1981, Purdue University

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Workman, Jamie, *Assistant Professor of Mechanical Engineering Technology* (1999); B.S. Mechanical Engineering, 1992, M.S. in Mechanical Engineering, 1999, Purdue University

Yokomoto, Charles F., *Professor of Electrical Engineering* (1970); B.S. Electrical Engineering, 1964, M.S. Electrical Engineering, 1966, Ph.D. Electrical Engineering, 1970, Purdue University

Yokota, Hiroki, *Assistant Professor of Mechanical Engineering Biomedical Engineering and Anatomy-Cell Biology* (1998); B.S. Aeronautics and Astronautics, 1978; M.S. Astronautics, 1980; Ph.D. Engineering, Astronautics, 1983, Tokyo University, Japan; Ph.D. Biology, 1993, Indiana University

Yurtseven, H. Öner, *Dean and Professor of Electrical Engineering* (1977); B.S. Electrical Engineering, 1967, Middle East Technical University, Turkey; Ph.D. Electrical Engineering, 1974, Johns Hopkins University

Zeher, John E., *Professor of Mechanical Engineering Technology* (1983); B.S. Industrial Technology, 1971, Miami University; M.S. Mechanical Engineering Technology, 1972, Western Michigan University; P.E., Indiana

Faculty Emeriti

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Arffa, Gerald L., *Organizational Leadership and Supervision* (1979); A.A.S. Chemical Technology, 1950, Broome County Technical College; B.S. Chemical Engineering, 1955, Clarkson College of Technology; M.B.A. Production Management, 1958, Syracuse University; Ph.D. Administrative and Engineering Systems, 1980, Union College; P.E., New York

Beck, Richard J., *Civil Engineering Technology* (1962); B.S., *Light Building*, 1951, University of Wisconsin; M.S. Structures, 1959, University of Illinois; P.E., Indiana

Bostwick, W. David, *Organizational Leadership and Supervision* (1976); B.S. Mathematics, 1961, Northern Illinois University; M.A. Educational Administration, 1964, Roosevelt University; Ph.D. Educational Administration, 1970, University of Kentucky

Bowman, Michael S., *Mechanical Engineering Technology* (1964); B.S. Mechanical Engineering, 1959, Purdue University; M.B.A. 1961, Indiana University

Close, Sam, *Mechanical Engineering Technology* (1966); B.M.E. Mechanical Engineering, 1947, Cleveland State University; P.E., Indiana, Ohio

Crozier, Robert G., *Computer Technology* (1972); B.S. Forestry, 1961, University of Missouri; M.S. Forestry, 1962, Ph.D. Entomology, 1966, Purdue University

Dault, Raymond A., *Restaurant, Hotel, Institutional, and Tourism Management* (1950); B.A. Hotel Administration, 1950, Michigan State University; M.B.A. Management, 1969, Indiana University

Dunipace, Kenneth R., *Electrical Engineering* (1977); B.S. Secondary Education, 1951, Ohio State University; B.S. Mechanical Engineering, 1956, Massachusetts Institute of Technology; M.E. Electrical Engineering, 1965, University of Florida; Ph.D. Electrical Engineering, 1968, Clemson University; P.E., Massachusetts, Missouri

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Fleenor, Edgar, *Construction Technology* (1997); B.S. Industrial Education, 1955, M.A. Education, 1960, Indiana State University; Ph.D. Education, 1974, The Ohio State University

Max, Abraham M., *Mechanical Engineering* (1968); B.S., 1934, M.S., 1935, Ph.D., 1937, University of Wisconsin

Maxwell, Michael P., *Construction Technology* (1977); B.A.E. Architectural Engineering, 1955, University of Detroit; Reg. Architect, Indiana, Illinois

Moll, Richard E., *Mechanical Engineering Technology* (1958); B.S. Industrial Education, 1955, M.S. Industrial Education, 1963, Purdue University

Naghdi, Amir K., *Mechanical Engineering and Mathematical Sciences* (1966); B.S. Mechanical Engineering, 1951, University of Tebran, Iran; M.S. Mechanical Engineering, 1958, University of Illinois; Ph.D. Engineering Sciences, 1964, Purdue University

O'Loughlin, Carol L., *Electrical Engineering* (1984); B.S. Physics/Mathematics, 1957, Marquette University; M.S. Physics, 1962, Purdue University; Ph.D. Solid-State Physics, 1968, Tulane University; P.E., Indiana

O'Loughlin, John R., *Mechanical Engineering* (1969); B.E. Mechanical Engineering, 1955, Youngstown State University; M.S. Mechanical Engineering, 1958, University of Pittsburgh; Ph.D. Mechanical Engineering, 1961, Purdue University; M.B.A. Business Administration, 1977, Indiana University; P.E., Indiana

Renda, R. Bruce, *Professor Emeritus of Electrical and Mechanical Engineering* (1974); B.S. Mechanical Engineering, 1952, M.S. Mechanical Engineering, 1957, Ph.D. Mechanical Engineering, 1957, Purdue University

Seibert, William L., *Electrical Engineering Technology* (1977); B.S. Electrical Engineering, 1955, M.S. Engineering, 1972, Purdue University

Sharp, P. Kent, *Electrical Engineering Technology* (1966); B.S. Electrical Engineering, 1957, Rose-Hulman Institute of Technology; M.S. Electrical Engineering, 1964, University of Colorado; P.E., Indiana

Silence, Judith O., *Computer Technology* (1978); A.B. Mathematics, 1962, M.S.Ed. Vocational Education, 1982, Indiana University

Solinski, Edward M., *Computer Technology* (1973); B.S. Engineering, 1960, Cleveland State University; M.S. Engineering Administration, 1964, Case Western Reserve University

Westcott, Roy E., *Mechanical Engineering Technology* (1981); B.S. Industrial Education, 1979, Purdue University; M.S.Ed. Vocational Education, 1981, Indiana University

Willison, Thomas K., *Electrical Engineering Technology* (1966); B.S. Mathematics, 1965, M.S. Physics, 1970, Indiana State University

Wisner, Howard L., *Electrical Engineering Technology and Organizational Leadership and Supervision* (1946); B.A., 1932, M.S., 1939, Indiana University

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Contents

229	Administration of Graduate Programs at IUPUI	234	Graduate Non-Degree Program
229	IUPUI Graduate Office	234	Application Information
229	IUPUI Graduate Affairs Committee	234	Graduate Non-Degree Policies
229	Integrity in Graduate Education	234	English as a Second Language Proficiency Policy for Graduate Non-Degree Students Who Are Nonnative Speakers of English
229	General Graduate School Regulations and Information	235	Application to a Graduate or Professional Program
229	Social Security Number	235	Financial Aid for Graduate Non-Degree Students
230	English as a Second Language (ESL) Placement Test	235	IUPUI Employees and Their Spouses
230	English Proficiency		
230	GRE (Graduate Record Examination)		
230	International Students		
230	Enrollment/Registration		
230	Financial Aid		
230	Associate Instructorships, Graduate Assistantships, and Research Assistantships		
230	Fellowships		
230	Foreign Language Requirements		
230	Grades		
231	Standards of Work		
231	Thesis		
231	Visiting/Transient Students		
231	Indiana University Graduate School		
231	Degree Information		
231	Purdue University Graduate School		
231	Admission		
231	Undergraduate Requirements		
231	Classification and Admission		
231	Financial Aid and Admissions		
231	Application		
231	Deadlines		
232	Academic Regulations		
232	Enrollment/Registration		
232	Registration Limitations/Full-Time Study		
232	Residence Study Requirements		
232	Transfer Credit		
232	Candidacy		
232	Master's Degree		
232	Ph.D. Degree		
232	Master's Degree Regulations		
232	Advisory Committee		
232	Plan of Study		
232	Non-Thesis Master's Degrees		
232	Thesis Master's Degree		
233	Multiple Master's Degree		
233	Ph.D. Degree Regulations		
233	Advisory Committee		
233	Plan of Study		
233	Qualifying Examinations		
233	Preliminary Examinations		
233	Thesis		
234	Final Examination		
234	Publication and Use of Theses		

Administration of Graduate Programs at IUPUI

Indiana University–Purdue University Indianapolis (IUPUI), a comprehensive campus made up of 19 Indiana University and Purdue University schools, is a dynamic place where new degree initiatives are fostered. Involvement with society at large and the community in particular is a hallmark of this campus, which changes the flavor of new degree programs. Thus, students will find innovative programs in public health, philanthropy, public history, and social work as well as developing programs in informatics and visual communications. These new and developing programs enrich the solid foundation of traditional graduate programs available at IUPUI. Please see: www.iupui.edu/~resgrad/grad/academics_content2.htm for a complete listing of the graduate degree programs at IUPUI.

There are three types of post-baccalaureate programs at IUPUI: (1) programs leading to graduate degrees and certificates administered by Indiana University Graduate School, (2) programs leading to graduate degrees and certificates administered by Purdue University Graduate School, and (3) other programs that are administered mainly by individual schools such as the Schools of Medicine, Dentistry, Law, Public and Environmental Affairs, Education, Library and Information Science, Allied Health Sciences, Music, Nursing, the Kelley School of Business, Informatics, and the Herron School of Art. For information about applying to one of the degree programs within these schools, please contact the school or department offering the degree.

At IUPUI, the vice chancellor for research and graduate education/associate vice president for research acts in conjunction with the IUPUI executive vice chancellor/dean of faculties to administer graduate programs. The vice chancellor for research and graduate education carries out all graduate program–related assignments made by the chancellor of IUPUI and the Indiana University vice president for research/dean of the Graduate School, and is the liaison to Purdue University for graduate affairs and research. The vice chancellor for research and graduate education collaborates with the associate dean of the Indiana University Graduate School who is also director of the IUPUI Graduate Office.

IUPUI Graduate Office

The IUPUI Graduate Office is the administrative center for graduate and graduate/professional programs on the Indianapolis campus. Although no graduate degrees are granted by IUPUI itself, more than 7,000 students pursue one of the 127 graduate-level certificates and degrees offered on the IUPUI campus by the Indiana University Graduate School, the Purdue University Graduate School, and Indiana University individual schools. The director serves as dean of students for all IUPUI post-baccalaureate students in collaboration with the IUPUI dean of students. In

addition to the director, the Graduate Office has an assistant director, an assistant dean, a graduate non-degree counselor, and other support staff.

As the locus of graduate administrative activity, the IUPUI Graduate Office has many responsibilities, including the processing of applications and GRE scores and the deposit of theses and dissertations for the Graduate Schools of both IU and PU. The office provides staff support for all graduate administrative committees, sponsors student organizations (e.g., the Graduate Student Organization, and the Postdoctoral Organization), counsels post-baccalaureate students and prospective students, conducts workshops, holds orientation sessions, and organizes Graduate School commencement activities. The IUPUI Graduate Office also connects IUPUI to a wider graduate community through organizations such as the Council of Graduate Schools (CGS), the Committee on Institutional Cooperation (CIC), and the Midwest Association of Graduate Schools (MAGS). Perhaps most importantly, the IUPUI Graduate Office is the answer center for a wide range of questions pertaining to graduate study, graduate programs, and graduate student life. In addition, the IUPUI Graduate Office supports other offices, such as the Enrollment Center and the Community Learning Network, in providing information and documents for general inquiries. The IUPUI Graduate Office, under the primary direction of the assistant dean, also carries out recruiting for campus graduate programs.

IUPUI Graduate Affairs Committee

The Graduate Affairs Committee at IUPUI is charged with overseeing the development of new programs, quality control, recruitment, and other issues related to graduate education on the campus. Membership of this committee includes the graduate deans or their designee from both Indiana University and Purdue University as well as deans, associate deans, president of the Graduate Student Organization, and faculty from all of the schools with post-baccalaureate programs on the IUPUI campus. New initiatives and directions are discussed and appropriate issues are shared with the respective schools for further development and comment. New program proposals are reviewed by assigned members of the Graduate Affairs Committee and are discussed and approved by the full committee. The Curriculum Subcommittee, which is appointed by the Indiana University Graduate School associate dean, has the responsibility of reviewing all new course or course change requests and providing recommendations to the Graduate Affairs Committee. Approved program or course proposals are referred to either the IU Graduate Council or to the Purdue Graduate School for final action before going to ICHE, if necessary. The Fellowship Subcommittee reviews nominations and selects the recipients of graduate fellowships.

The following pages outline general regulations for graduate and professional programs on the IUPUI campus. For specific information about the

admissions process, degree requirements, prerequisites, etc., please contact the school or department offering the degree.

Contact information for the IUPUI Graduate Office:

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Indiana University Graduate School Phone:

(317) 274-4023

Graduate Non-Degree Program Phone:

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Integrity in Graduate Education

Students are expected to adhere to the highest ethical standards in all their course work and research. Individuals violating that code of conduct are subject to disciplinary action; such breaches could lead to expulsion of the student from the university or to rescission of a degree already granted. To acquaint students more fully with the range of issues relating to academic integrity, a document entitled “Integrity in Graduate Study” is available, which deals with topics such as plagiarism, fraud, and conflicts of interest, among others. Copies of that document may be obtained from departmental offices or from the IUPUI Graduate Office, Union Building 518. Every student should be familiar with its contents. Graduate students are also subject to the provisions outlined in the *Code of Student Rights, Responsibilities, and Conduct*. Copies of this document are available at the Office of Student Life and Diversity, as well as at the IUPUI Graduate Office.

General Graduate Regulations and Information

Social Security Number

In accordance with the Privacy Act of 1974 and Indiana PL22 of 1977, students or applicants are advised that the requested disclosure of the Social Security number to an office is voluntary. A student has the right to refuse disclosure of this number or request its removal from records without penalty. A special, nine-digit student identification will then be assigned for use throughout the duration of a student's involvement with the university. The Social Security number will be used to: identify a student's records, such as permanent transcript, registration, grade reports, transcript requests, and certification requests; as an identifier for grants, loans, and other financial aid programs; and to determine eligibility, certify school attendance, and report student status. A student's Social Security number is not disclosed to individuals or agencies outside Indiana University, except in accordance with the Indiana University policy on release of student information.

English as a Second Language (ESL) Placement Test

The IUPUI ESL Program and the Office of International Affairs have joined together to administer the required English as a Second Language (ESL) Placement Test for students whose native language is not English. All international students must take this test prior to registration for classes even if the TOEFL test has been taken. Because this is a placement test used to accurately determine English language skill level, students do not need to "prepare" for it. The scores are used to assign the ESL classes that best meet students' academic needs and that will provide the favorable English experiences necessary for a successful career at IUPUI. Students are required to begin the assigned ESL courses within their first or second semester on campus. The ESL Placement Test takes approximately three (3) hours to complete and consists of three parts:

1. Objective test (1.25 hours): this test consists of grammar, vocabulary, and reading comprehension sections that test knowledge and understanding of the English language.
2. Written essay (30 minutes): this test assesses the student's ability to write in an organized fashion about a specific topic in a limited time period. Each topic allows a student to use personal experience and observations for information, examples, and generalizations. The essay test does not require outside source information or specific knowledge in a certain area, but requires clear and effective writing.
3. Listening test (20 minutes): this test evaluates the student's listening comprehension. The test is presented in the form of an audio tape, which includes questions and statements.

Students register in advance for the ESL Placement Test and pay a testing fee. Students must either be admitted to study at IUPUI or have filed an admission application in order to register for the test. To register, contact the Office of International Affairs, at (317) 274-7000, between the hours of 8:30 a.m. and 4:30 p.m., Monday through Friday.

English Proficiency

Applicants, except those whose native language is English, are expected to submit results of the Test of English as a Foreign Language (TOEFL). The TOEFL is given worldwide throughout the year. Information on testing dates, availability of computer-based tests, locations, and costs may be obtained by writing to:

TOEFL/TSE Services
P.O. Box 6151
Princeton, NJ 08541-6151
USA

IUPUI's school code number for the TOEFL application is 1325. All Purdue University and Indiana University Graduate School graduate teaching assistants/instructors whose native language is not English must demonstrate adequate oral English proficiency before being assigned duties involving direct instruction of students.

GRE (Graduate Record Examination)

Applicants may be required to take the Graduate Record Examination General Test, Subject Test, or both (see departmental requirements). Information concerning this exam may be obtained from:

Graduate Record Examinations
Educational Testing Service
CN 6000
Princeton, NJ 08541-6000

Students may also call a Sylvan Learning Center to schedule the computer-based version of the GRE. It is particularly important that the GRE be taken if the applicant:

1. is seeking admission to a department that requests it (see individual departmental requirements);
2. wishes to be considered for a fellowship;
3. feels that the previous academic record does not adequately reflect the applicant's ability;
4. received the baccalaureate degree from an unaccredited institution;

GRE booklets are available in the IUPUI Graduate Office.

International Students

There are special application procedures for those who are not citizens of the United States or who have had their previous schooling outside the United States. Such individuals should obtain the International Application packet from the Office of International Affairs (Union Building, Room 207). Information and an international application may be obtained on the Web.

Once enrolled, international students who wish to change their program of study must first obtain the approval of the Office of International Affairs. When such approval is granted, application for formal change of status may then be made to the appropriate school according to the same procedures governing United States citizens.

International students must enroll in at least 8 credit hours each fall and spring semester in order to meet visa requirements. Any exceptions to this regulation must be approved in advance by the Office of International Affairs.

Enrollment/Registration

The courses in which a graduate student enrolls should reflect the nature and amount of the student's study and research activities as accurately as possible. Research includes literature reviews and thesis writing. A candidate for any advanced degree (excluding Indiana University Graduate School master's students) must be registered during the session in which he or she expects to receive the degree.

Proper registration is the responsibility of the student, the major professor, and the student's department. The IUPUI Graduate Office staff does not (except in unusual cases) counsel individual graduate students relative to their programs and progress. Necessary contacts should, in general, be made through the student's department.

Financial Aid

Graduate students interested in obtaining an Indiana University or Purdue University degree at the Indianapolis campus should contact IUPUI's financial aid office:

Office of Student Financial Aid Services
425 University Blvd.
Cavanaugh Hall 103
Indianapolis, IN 46202
Phone: (317) 274-4723

Associate Instructorships, Graduate Assistantships, and Research Assistantships

A large number of associate instructorships, graduate assistantships, and research assistantships are available in departments and schools. Some of these positions are accompanied by fee scholarships, which defray the cost of tuition and fees with the exception of special fees and those fees dedicated to debt retirement on physical facilities. Application for such positions should be made to the department or school in which the student wishes to work. Early application is advisable.

Fellowships

A number of fellowships are available to students enrolled full time; among them are Graduate School fellowships, fee scholarships, and various privately and federally funded awards. Students should indicate their interest in these fellowships directly to the major department. Information on, and preliminary application materials for, the National Science Foundation Graduate Fellowships may be obtained from:

Fellowship Office
National Research Council
2101 Constitution Avenue N.W.
Washington, DC 20418

In all cases, early application is advisable. It should be noted that all such award holders are required to devote full time to their studies.

Foreign Language Requirements

There is no general requirement of competency in any foreign language. Each department determines requirements, if any, and options for satisfying them are obtained from the department.

Grades

Grade points are assigned at IUPUI according to the following scale; in calculating grade point averages, any plus or minus accompanying a letter grade is taken into account.

A	=	4.0
A-	=	3.7
B+	=	3.3
B	=	3.0
B-	=	2.7
C+	=	2.3
C	=	2.0
C-	=	1.7
D+	=	1.3
D	=	1.0
D-	=	0.7
F	=	0

Courses completed with grades below C (2.0) are not counted toward degree requirements, but such grades will be counted in calculating a student's grade point average. Some departments may require an average grade in graduate courses higher than B (3.0), while others may count no courses completed with grades below B (3.0) toward degree requirements. No work may be transferred from another institution unless the grade is a B (3.0) or higher.

The school dean may review a grade record at any time and may place a student on academic probation if the record justifies such action. When the grade point average of a student falls below 3.0, or the student is not making sufficient progress toward the degree, the dean will notify the student that he or she has been placed on probation. Unless the student brings this record up to a 3.0 grade point average, or begins making satisfactory progress in the next semester of enrollment, the student will not ordinarily be allowed to continue study at the university.

Standards of Work

Success in graduate study requires performance of a high quality. Pass/not-pass grades are unacceptable. A student's progress will be reviewed each semester by the department. Any student who fails to perform on a level satisfactory to the advisory committee or the dean may be asked to discontinue graduate study. The same scholastic requirements in effect during the regular university year apply to graduate study during the summer sessions and to work taken at all Indiana University or Purdue University campuses. The same grade standards also apply to prerequisite courses.

Thesis

A master's or doctoral thesis is a document authored by a student that describes results of original research undertaken by that student and asserts a position which that student is willing to defend. This position should not be construed to prohibit joint or collaborative research endeavors. It is expected, however, that in such a situation, unique aspects of the broad problem will be explored by each individual and that the thesis written and presented to the final examining committee will be a personal document describing the student's creative effort and contribution. Students should speak with their advisor early in their graduate careers when considering a collaborative thesis project.

Visiting/Transient Students

Visiting students in good standing in any accredited graduate school who wish to enroll for one semester or summer session and who plan to return thereafter to their former institution may be admitted as visiting/transient students if their enrollment can be accommodated. Visiting/transient students should register as Graduate Non-Degree Program students. Information about the Graduate Non-Degree Program may be obtained from:

IUPUI Graduate Office
620 Union Drive
Union Building, Room 518
Indianapolis, IN 46202
Phone: (317) 274-1577
Fax: (317) 278-2380
www.iupui.edu/~resgrad/grad/grad_menu.htm

Indiana University Graduate School

Degree Information

The Indiana University Graduate School confers the following degrees: M.A. in History, M.A. in English, M.A. in Sociology, M.A.T. in Spanish, M.A. in Economics, M.A. in Philanthropic Studies, M.S. and Ph.D. in Anatomy, Biochemistry, Dental Science, Medical Biophysics, Medical Genetics, Medical Neurobiology, Microbiology and Immunology, Pathology, Pharmacology and Toxicology, Cellular and Integrative Physiology, and the M.S. in Geology. It also confers the Ph.D. in Nursing and Social Work and several graduate level certificates.

For complete information (including admissions procedures) about all of the programs listed above, please contact the department or school directly. Information about these programs may also be obtained through the following URL:
www.iupui.edu/~resgrad/grad/academics_content2.htm

Policies, procedures, and degree and graduation requirements of the Indiana University Graduate School are published in the Indiana University Graduate School Bulletin. Copies of this bulletin may be obtained from the IUPUI Graduate Office or at the following URL:
www.indiana.edu/~grdschl/grdblt/bltcont.html

Purdue University Graduate School

Admission

Undergraduate Requirements

Correspondence about admission to the Graduate School should be addressed to the Graduate Studies Office of the department or program to which an applicant wishes to be admitted or to the Graduate School, Purdue University, West Lafayette, IN 47907. Applicants ordinarily will be expected to hold baccalaureate degrees from colleges or universities of recognized standing prior to registration as graduate students. Applicants for a master's or doctoral degree program should have achieved a 3.0 (out of 4.0) grade point average or higher for the baccalaureate degree or have other indicators of outstanding academic performance.

For additional information concerning requirements for admission, please consult the specific departments or programs at IUPUI to which you wish to apply. Some departments have requirements for admission that exceed the general Graduate School requirements.

Classification and Admission

Degree-seeking applicants are those who seek to study for a doctoral or master's degree.

Degree-seeking graduate students must show promise, as judged by academic performance and experience, of ability to perform advanced study and research and must have adequate preparation in their chosen fields of study. Applicants must submit an official transcript from each college or university attended. If these transcripts are not in English, the official original-language transcripts must be accompanied by certified English translations.

For unconditional admission to a degree program, a B or better average in prior study is required. Individual departments may set higher grade requirements and may require the submission of additional evidence of academic performance.

A minimal score of 550 on the Test of English as a Foreign Language (TOEFL) is required for admission to the Graduate School for all international applicants whose native language is not English. See "International Students" in the "General Regulations" section at the beginning of the "IUPUI Graduate Office" section for more information about TOEFL.

Nondegree-seeking applicants are those who wish to attend graduate school for professional and personal enrichment without seeking an additional degree. See the "Graduate Non-Degree" section for more information about nondegree-seeking applicants.

Financial Aid and Admissions

Students who are interested in earning a Purdue degree while taking classes should contact IUPUI's financial aid office.

Any student who is not a full admit to a program may enroll in classes as a Graduate Non-Degree student (see Graduate Non-Degree Program below). Students who are not fully admitted to a program should contact their department to verify their admission status. In many cases, students who are Graduate Non-Degree or Special Students do not qualify for financial aid.

Application

Deadlines

Application materials to Purdue graduate programs at IUPUI are available from the department in which the student is interested in taking classes. See departmental listings in this bulletin or departmental Web sites for contact information. All materials for Purdue graduate programs should be submitted to the school from which the applicant wishes to obtain a degree (e.g., IUPUI School of Engineering and Technology or IUPUI School of Science).

The standard deadlines are given below. However, students should check with the department and program to which they are applying, as departmental deadlines may differ:

Degree-seeking applicants: Deadlines for applications for admission and for graduate assistantships and most fellowships are established by each department. In order to receive full consideration for available graduate appointments, it is generally recommended

that applications for August entry be received no later than February and that those for January entry be received no later than August.

Nondegree-seeking applicants: Applications for Nondegree study should be submitted at least two (2) weeks prior to the first day of classes. Applications may be picked up for the Graduate Non-Degree Program in the IUPUI Graduate Office (please see above contact information for the IUPUI Graduate Office).

International applicants: All applications from outside the United States should be received at least six (6) months prior to the month of entry.

Academic Regulations

Enrollment/Registration

A candidate for any advanced degree must be registered during the session in which he or she expects to receive the degree. Students in the last semester of the thesis option master's program or a Ph.D. program must be registered for a minimum of 3 credit hours of research unless specifically excused through the Purdue University Graduate School's approval to register for "exam only" or "degree only."

Registration Limitations/Full-Time Study

A graduate student normally will register for no more than 18 credit hours per semester. Graduate students holding graduate-staff appointments should note the following limitations applicable to each semester's registration:

1. those carrying full-time staff duties may register for not more than 6 credit hours;
2. those carrying three-quarter-time staff duties may register for not more than 9 semester hours;
3. those carrying half-time duties may register for not more than 12 semester hours;
4. those carrying quarter-time staff duties may register for not more than 15 semester hours; the minimum allowable total registration is 3 semester hours.

The maximum loads are to include all courses, whether undergraduate or graduate level.

The above regulations are stated for a 16-week semester and must be adjusted for the summer session.

Residence Study Requirements

The total number of hours of academic credit used to satisfy residency requirements consists of all course credit hours that appear on the plan of study, other graduate course credit hours with grades of C or better that appear on the Purdue transcript, and research hours that appear on the Purdue transcript.

1. Master's Degree:
 - At least one-half of the total credit hours used to satisfy degree requirements must be earned in residence at IUPUI.
 - At least 30 total credit hours are required.
2. Doctoral Degree:
 - At least one-third of the total credit hours used to satisfy degree requirements must be earned (while registered for doctoral study) in continuous residence on the IUPUI campus.
 - At least 90 credit hours are required.

- A master's degree from any accredited university may contribute 30 credit hours to satisfy this residency requirement.

In fulfilling these requirements, a maximum of 15 credit hours will be allowed from any one semester (maximum hours proportional to the length of summer session).

Transfer Credit

Credits earned for graduate study at other universities may be applied toward an advanced degree. Only credit hours associated with graduate courses for which grades of B or better were obtained will be eligible for transfer. The various departments determine transfer courses for which an applicant will receive credit in a particular degree program and any additional conditions under which credit transfers may be made.

Candidacy

Master's Degree

Admission to candidacy for the master's degree is granted after approval of a plan of study by the student's advisory committee, head of the graduate program, the school dean, and by the Graduate School dean as described below.

Ph.D. Degree

Admission to candidacy for the degree of Doctor of Philosophy takes place only after the student has passed a preliminary examination, which is usually administered near the close of the second year of graduate study or when substantially all of the course work has been completed.

Master's Degree Regulations

Advisory Committee

For each prospective candidate for the master's degree, an advisory committee shall be appointed, consisting of at least three members of the graduate faculty. The duties of this committee are to assist the student in the preparation of a plan of study and to advise him or her during the period of graduate work. In the case of the thesis option, the committee also advises the student regarding research and writing of the thesis. The student, with the approval of the head of the graduate program, shall select a major professor. The major professor/student relationship must be a mutually acceptable one. When selected, the major professor will act as the chair of the student's advisory committee and be in charge of his or her research. The advisory committee as agreed upon by the major professor and the student, with the approval of the head of the graduate program, shall be presented to the dean of the Graduate School for approval and formal appointment.

Plan of Study

A tentative plan of study should be drawn up in advance of registration for the first semester of graduate work, and the formal plan of study must be submitted to the dean of the Graduate School before the final session, preferably during the first semester in residence.

The plan of study shall be appropriate to meet the needs of the student in his or her chosen field, as determined by the advisory committee and approved

by the head of the graduate program, the school dean, and the Graduate School dean. It shall include the specific courses the student is expected to complete and all other requirements of the particular master's degree being sought. Neither 100- nor 200-level courses may appear on a plan of study. Otherwise, requirements for the numerical level (300 through 600) of courses are determined by each department or administrative unit subject to the restriction that not more than a total of six 300- or 400-level course credit hours may appear on a plan of study. Research credits are not to appear on the plan of study. The quantitative aspects of research registration are controlled by departmental requirements and/or by residence requirements, registration limits, and thesis requirements. Course credits earned by a student whose graduate study and/or professional activity has been inactive for five years or more cannot be used on a plan of study for an advanced degree. A plan of study approved prior to such a period of inactivity is invalid. Requirements for the specific number of credit hours will be determined by each department or administrative unit that supervises master's degree programs. For specific requirements, the student should consult the introductory sections of the departmental course offerings under the general heading "Descriptions of Programs and Courses" in this bulletin and request, from the department, information about any additional requirements.

Non-Thesis Master's Degree

The Graduate School has no general requirement for oral and written examinations for the non-thesis master's degree. In any department, the final examination may be waived if the student meets the minimum requirements of the department. In some departments, a final examining committee is appointed for each candidate for the non-thesis master's degree and a final examination report is filed with the Graduate School before the end of the session in which the student is to receive a degree. The committee must certify to the Graduate School either that the student has passed the required examinations of the department or that the committee is satisfied with the accomplishment of the student as determined by a committee conference. In other departments, neither a final examining committee nor a final examination is required. In these departments, the student is certified for the degree by satisfying established graduation requirements of the department.

Thesis Master's Degree

Every candidate whose plan of study follows the thesis option must prepare an acceptable thesis in residence. Research in absentia is not allowed for the master's degree. In general, the thesis will be based on work done in connection with the primary area. The work will consist of assigned research, which shall be recorded with no grades given except "satisfactory" and "unsatisfactory."

The general schedule for submitting the master's thesis is similar to the schedule cited on the following pages for the Ph.D., except that only three members of the graduate faculty are required for the final examining committee, and no microfilming fee is required.

After the research has been completed and the thesis written, the candidate shall be given a final examination in which he or she defends the thesis and demonstrates to the examining committee that he or she has all of the capabilities for which the master's degree is awarded. The dean of the Graduate School reserves the right to appoint additional committee members.

Multiple Master's Degrees

A student may earn two (2) Purdue master's degrees provided there is no overlap in the two plans of study. Where the requirements for two advanced degrees are of a nature requiring some overlap, instead of waiving the requirements for one of these degrees, (e.g., by dual listing of courses on the plans of study), the departments concerned may involve the student in alternate educational activities. As an alternative to multiple master's degrees, departments may wish to offer advanced degrees involving joint areas of study.

A program of study involving the Ph.D. degree and two or more master's degrees may be approved, provided it meets all of the existing requirements and provided that any overlap between courses listed on the plan of study for the Ph.D. degree and those listed for the master's degrees involves only one of the master's plans of study.

Ph.D. Degree Regulations

The degree of Doctor of Philosophy is the highest earned degree conferred by Purdue University and is awarded only to those who have demonstrated superior ability in a recognized academic discipline. Each student's doctoral program must specify course work that is rationally related, should be highly research oriented, and should culminate in a thesis of literary and scholarly merit that is indicative of the candidate's ability to conduct original research in a recognized field of specialization.

Doctoral programs are composed of formal courses, guided individual study in a chosen field or discipline, study in such cognate subjects as may be required by the candidate's advisory committee, and original research that serves as the basis of a scholarly thesis.

Before being admitted to candidacy for the Ph.D. degree, each student is required to pass a series of comprehensive examinations. Individual departments may require both qualifying and preliminary examinations and may require competence in one or more foreign languages.

A second Ph.D. degree program generally is not permitted at Purdue, but exceptional circumstances may be considered by the Graduate Council.

Advisory Committee

Each prospective candidate for the Ph.D. degree, with the approval of the head of his or her graduate program, shall select a major professor who will act as the chair of the advisory committee and who will direct the research. An advisory committee of not fewer than three members of the graduate faculty will then be appointed. The composition of this committee must be mutually acceptable to the student and the committee and should be representative of the general field of study in which the student expects to do work. The advisory committee as agreed upon by the major professor and the student, with the approval of the

head of the graduate program, shall be presented to the dean of the Graduate School for approval and formal appointment. The dean may appoint additional members if it seems advisable.

Plan of Study

A plan of study should be prepared by the student and the advisory committee at the earliest practicable time. It is recommended that the plan of study be submitted before the end of the first semester following the acceptance of the student to work toward the Ph.D. degree, and all plans of study must be filed with the Graduate School before the preliminary examination is requested.

The plan of study shall specify the area or field of interest in which the student proposes to study and to conduct research. It shall meet the needs of the student as determined by the advisory committee by including the specific courses that the student is expected to complete and all specific course, seminar, language (if any), and research requirements of the department in which the student is a doctoral candidate, indicating the manner in which these requirements are to be met. Neither 100- nor 200-level courses may appear on a plan of study. Otherwise, requirements for the numerical level (300 through 600) of courses are determined by each department or administrative unit subject to the restriction that not more than a total of six 300- or 400-level course credit hours may appear on a plan of study. Research credits are not to appear on the plan of study. The quantitative aspects of research registration are controlled by departmental requirements and/or by residence requirements, registration limits, and thesis requirements. Course credits earned by a student whose graduate study and/or professional activity has been inactive for five years or more cannot be used on a plan of study for an advanced degree.

A plan of study approved prior to such a period of inactivity is invalid. A preliminary examination passed prior to such a period of inactivity is invalid. Requirements for the specific number of credit hours will be determined by each department or administrative unit that supervises doctoral programs.

The plan of study must be approved by the head of the graduate program, the school dean, and the Graduate School dean. The dean of the Graduate School reserves the right to refer any or all plans of study to the Graduate Council for review and approval when deemed advisable. The Graduate Council has the final authority to supervise the quality of all graduate programs.

Qualifying Examinations

Qualifying examinations for the Ph.D. degree are required in some departments. These examinations are for the purpose of determining the student's qualifications to continue graduate study toward the Ph.D. degree.

Preliminary Examinations

After the student has completed most of the formal study to the satisfaction of the advisory committee and met the language requirement(s), if any, he or she becomes eligible to take the preliminary examinations. The results of these examinations, written and/or oral, will be reported to the Graduate

School by the examining committee with an appropriate recommendation for the student's admission to candidacy, continued preparatory study, or discontinuation of study. The dean of the Graduate School reserves the right to appoint additional members to the preliminary examining committee. The dean must be informed of the date and place of the examination and the membership of the examining committee at least two weeks before the examination. No examining committee shall have fewer than three members of the graduate faculty.

The preliminary examination will be conducted by the examining committee. In some cases, parts of the examination may be delegated to certain other staff members, but the final responsibility for the examination rests with the student's examining committee.

Departments need not offer written preliminary examinations more than once a semester, and it will be the responsibility of the student to learn in advance when these examinations are to be given.

If the student does not pass the preliminary examinations, at least one semester must elapse before reexamination is permitted. Should the preliminary examinations be failed twice, the student may not be given a third examination, except upon the recommendation of the examining committee and with special approval of the Graduate Council.

After admission to candidacy, the candidate must devote at least two semesters to research before taking the final examination.

Thesis

The special research carried on as part of the doctoral work is expected to make a definite contribution to the candidate's chosen field of knowledge a contribution of sufficient importance to merit publication. The candidate must, therefore, prepare a thesis showing the results of his or her research. Following is the schedule that should be adhered to with regard to the submission of the dissertation and final examination:

1. A first draft of the thesis should be in the hands of the major professor at least six weeks before the end of the session in which the degree is to be granted.
2. The thesis must be prepared according to departmental format requirements (available in departmental graduate studies offices) and university format requirements as described in the Manual for the Preparation of Graduate Theses, a copy of which may be obtained in departmental offices. The thesis must bear the written approval of the professor who has directed the research before it is submitted to the final examining committee.
3. The final examining committee for the doctoral candidate shall consist of a minimum of four members of the graduate faculty. The formal request for the appointment of the examining committee must be received in the Graduate School not later than two weeks preceding the final examination. This formal request must specify the time and place of the examination.
4. Generally, each member of the examining committee must receive a copy of the thesis at

least two weeks before the date of the final oral examination.

5. Approval of departmental format requirements must be obtained before the thesis is delivered to the Library Thesis Deposit Office. University format requirements will be checked in the Library Thesis Deposit Office at the time the thesis is deposited.
6. The final examination must be taken and passed, and the report of the examination must be filed in the Graduate School before the last week of classes.
7. The completed and corrected deposit copy of the thesis, along with an extra copy of the title page and the abstract, must be deposited in the Library Thesis Deposit Office and a receipt thereof delivered to the Graduate School before the end of the first working day following the last day of classes of the session in which the degree is expected. Doctoral students must also submit one unbound copy of the thesis to the Library Thesis Deposit Office. The unbound copy will be sent to University Microfilms International for microfilming.
8. The sum of \$65 must be paid to the bursar of the university before the end of the session to pay for the cost of microfilming.

Final Examination

After the research has been completed and the dissertation written, the candidate shall be given a final examination in which he or she defends the thesis and demonstrates to the examining committee that he or she has all of the capabilities for which the Doctor of Philosophy degree is awarded. The examining committee shall consist of no fewer than four members of the graduate faculty. The dean of the Graduate School reserves the right to appoint additional committee members.

Publication and Use of Theses

The results obtained and the thesis prepared for an advanced degree are the property of the university. Except for the standard arrangement for the publication of Ph.D. theses on microfilm (see the following paragraph), no part of the thesis may be reproduced or published without the authorization of the president of the university or his designee. Unless otherwise named, the head of the department supervising the work shall act for the president. No part of the thesis may be used, directly or indirectly, in support of or in condemnation of any product or procedure referred to therein.

Purdue University has an agreement with University Microfilms International, Ann Arbor, Michigan, for microfilming Ph.D. theses. The availability of the dissertation in film form will be announced by a listing of the title and a reproduction of the thesis abstract in *Dissertation Abstracts International*, a monthly journal distributed to leading libraries here and abroad. The thesis fee covers the cost of microfilming and the publication and distribution of the abstract. A film copy or paper enlargement of all or part of the thesis may be ordered by anyone from the publishers of *Dissertation Abstracts International*. The original thesis and one unbound microform copy will be deposited in the University Library. Publication by microfilm does not preclude the printing of a

dissertation in whole or in part in a journal or monograph.

Graduate Non-Degree Program (GND)

Students who have a bachelor's degree can enroll for credit in a wide variety of undergraduate, graduate, and professional courses throughout the university as a GND student. Some courses students are interested in taking may require authorizations from the instructor or department prior to registration; this is particularly true for math and business courses. GND students may not take any graduate-level courses in law, medicine, social work, business, or informatics.

This program is for the student who:

1. wants to supplement his/her academic background by taking graduate, professional, or undergraduate courses;
2. wants to take courses for personal development;
3. is unsure about a graduate or professional program and would like to sample available programs;
4. is awaiting final approval of graduate admission and is taking courses with the guidance and approval of a degree program advisor;
5. wants to enhance skills utilized in a current career; or
6. wants to prepare for a change in careers.

Students who want to take course work for teachers license renewal, endorsements, certification for Indiana Teacher's License, or master's program should contact the:

School of Education
ES 31331
902 W. New York Street
Indianapolis, IN 46202-5154
Phone: (317) 274-6868

for direct admission to their program.

The address for the Graduate Non-Degree Program is:
Graduate Non-Degree Program
620 Union Drive, Room 518
Indianapolis, IN 46202
Phone: (317) 274-1577
Fax: (317) 278-2380

Application Information

To be eligible for the Graduate Non-Degree Program, students must have a bachelor's degree from an accredited institution and be a U.S. citizen or a student who does not need an I-20 or an IAP-66 for a student visa. Under most circumstances, Graduate Non-Degree is not an appropriate enrollment status for persons requiring a student visa to enter the country.

Students who are interested in taking courses as a Graduate Non-Degree student will need to apply to the Graduate Non-Degree Program and be admitted prior to being able to register for courses. The application process includes completing an application and paying an application fee. Please see the following URL for the online application and more

information about the Graduate Non-Degree Program: www.iupui.edu/~resgrad/grad/non/gnd-opening.htm.

Students previously admitted to the Graduate Non-Degree Program may not need to complete another application. Please see the above URL for directions on how to register for courses if you were previously admitted to the Graduate Non-Degree Program.

Graduate Non-Degree Policies

1. Graduate Non-Degree students must maintain a minimum GPA of at least 2.5.
2. Graduate Non-Degree students may not take more than 18 credit hours in a single subject area without written permission from the department to the GND advisor.
3. Graduate Non-Degree students must register for at least one course every two years to maintain active admission status. Reactivation may require re-application.
4. Admission to the Graduate Non-Degree program will not guarantee admission to a graduate degree program.
5. A maximum of 12 credits earned as a Graduate Non-Degree student may be applied to a certificate, master's degree, or Ph.D. Some departments allow less than 12 credits.
6. Graduate Non-Degree students may not register for any medical research course.
7. If Graduate Non-Degree students need advice about specific course issues or authorizations for designated courses, they can be obtained through the department that offers the course.
8. Graduate Non-Degree students may not enroll in graduate course work in medicine, social work, law, or business.

English as a Second Language Proficiency Policy for Graduate Non-Degree Students Who Are Nonnative Speakers of English

Effective August 1, 1997, the English language proficiency policy for Graduate Non-Degree applicants who are nonnative speakers of English is as follows:

Satisfactory English language skills are necessary for enrollment as a Graduate Non-Degree student. Nonnative English speakers must take the IUPUI ESL Placement test or the TOEFL unless they have received a U.S. bachelor's or higher degree. Individual schools and programs may have policies for documentation of English ability which are different from the GND policy. Students who anticipate pursuing a graduate degree on this campus are encouraged to take the ESL Placement Test, even if they are not required to take it for GND admission, since their academic unit will most likely require it at a later date.

GND students, who do not need an I-20 or IAP-66, are given a one-semester grace period in which to satisfy the testing requirement. If the student is subject to this policy, the student must take the ESL test before registration for a second semester will be permitted. To register for the test, call or visit the IUPUI Office of International Affairs (Union Building, Room 207, phone (317) 274-7000). There is a fee for this test.

To receive an exemption from the ESL test requirement under the terms of this policy, the student must submit an official transcript with the

GND application. Students who do not have official transcripts available upon application may submit them to the Office of International Affairs at a later date. Documents submitted to International Affairs after the GND application has been processed will be reviewed within two months of submission.

Any applicant who wishes to enroll in ESL courses must take the ESL Placement Test before course registration.

Application to a Graduate or Professional Program

Graduate Non-Degree students who later decide to pursue a certificate, master's degree, or a Ph.D. must apply and be admitted by a degree-granting program in order to receive a degree. For information about applying to one of the degree programs at IUPUI, please contact the school or department offering the degree.

Financial Aid for Graduate Non-Degree Students

A Graduate Non-Degree student who is taking prerequisites for a second bachelor's or graduate degree program may qualify for financial aid.

Graduate Non-Degree students may be eligible if:

1. the courses are being taken because an IUPUI graduate or undergraduate department or school has required the courses as prerequisites for admission to a graduate or undergraduate program here at IUPUI, and
2. those prerequisite courses being taken for any semester equal at least half-time enrollment (6 hours of undergraduate courses); all of which are prerequisites.
3. they did not max out their aid at the undergraduate level.

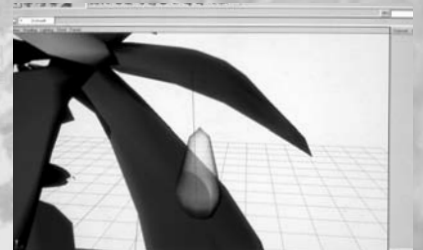
Questions regarding this information should be directed to the graduate area of the Office of Student Financial Aid Services at (317) 278-4723.

IUPUI Employees and Their Spouses

If the student or the student's spouse is employed full time at IUPUI, the Fee Courtesy Request Form, available from the Office of Student Financial Aid Services, Cavanaugh Hall 103, must be completed. If the student has been classified as a nonresident of Indiana for tuition purposes, the student should note that tuition is assessed at the out-of-state rate. Completing this form enables the student to receive the fee and reductions available to full-time IUPUI employees and their dependents.



INDIANA UNIVERSITY SCHOOL OF INFORMATICS IUPUI NEW MEDIA PROGRAM



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Contents

239 The School of Informatics/New Media Program	247 Residency Requirements
239 The Development of the School of Informatics	247 Intercampus Transfer
239 One School, Two Campuses	247 Transfer of Credit
239 Informatics Research Institute	247 Revalidation
239 Undergraduate Programs	247 Grading System
240 Probationary Admission to New Media	247 Incomplete
240 Academic Regulations	247 Withdrawals
240 Absences	247 Course Waivers
240 Credit for Correspondence Courses	247 Credit Earned in Nondegree Status
240 Degree Application	247 Academic Standing
240 Statute of Limitations	247 Academic Probation
240 Grading Policies	247 Academic Integrity
240 Grade Point Average	247 Thesis
240 Change of Grade	247 Degree Conferral
240 Incomplete Courses	247 Time Requirements
240 Pass/Fail Option	247 Master of Science Degrees
240 R Grade	247 Master of Science in Bioinformatics
240 FX Option	248 Master of Science in Chemical Informatics
240 Withdrawals	249 Master of Science in Health Informatics
241 Academic Standing	250 Master of Science in Human Computer Interaction
241 Class Standing	250 Master of Science in Media Arts and Science
241 Semester Load	251 Undergraduate Course Descriptions
241 Academic Probation	251 School of Informatics
241 Dismissal	251 New Media Program
241 Readmission	253 Graduate Course Descriptions
241 Academic Misconduct	253 School of Informatics
241 Cheating	254 New Media Program
241 Plagiarism	254 School of Informatics Administration, Faculty, and Staff 2002-04
241 Student Grievance Procedures	
241 Informatics Degree Programs	
242 Bachelor of Science in Informatics	
242 Degree Requirements	
242 Course Requirements	
243 Dual Baccalaureate Degrees	
243 Second Baccalaureate Degree	
243 Certificate and Minor in Informatics	
243 Minor in Business	
244 New Media Degree Programs	
244 Associate of Science in Media Arts and Technology	
244 Course Requirements	
244 Bachelor of Science in Media Arts and Science	
244 Degree Requirements	
244 Course Requirements	
245 Certificate in Internet Application Development	
245 Graduate Program	
245 Application Procedures	
246 Application Procedures for U.S. Citizens	
246 Application Procedures for International Students	
246 Application Deadlines	
246 Admission to the Master's Programs	
246 Financial Assistance	
246 Graduate Assistantships	
246 Fellowships and Scholarships	
246 Grants	
246 Loans	
247 Academic Regulations	
247 Applicability of Degree Requirements	

The School of Informatics/ New Media Program

Moore's Law says that computing power doubles every 18 months. Regardless of whether that law is literally correct, it illustrates the rapid changes in information technology that will continue throughout the foreseeable future. The School of Informatics prepares students to meet the increasing demand for information technology professionals. The curriculum combines knowledge of a specific subject area (or cognate area) with the concepts in informatics that will help students adapt to technological changes throughout their careers. The proverb says that if you give people fish, you've fed them for a day, but if you teach them how to fish, you've fed them for a lifetime. Like the proverb, informatics teaches students how to adapt to technological changes while preparing them for lifelong learning in their careers and in their lives.

The undergraduate curriculum looks at information technology from a liberal arts perspective. It goes well beyond a "technical school" approach to educate students in the underlying science of information and information technology and to explore their human implications. The School of Informatics educates students in the technical, psychological, and social aspects of information technology and, at the same time, educates them in the application of information technology to another discipline or "cognate area."

The curriculum is designed in two axes. One axis is the technical dimension, running from the logical and mathematical foundations of information technology to the issues of distributed information and knowledge systems. The other axis represents the human dimension, from the individual working with a computer and the area of human computer interaction to groups interacting via computers with each other and the areas of social and organizational informatics. Where these two axes cross, we have the intersection of the human and the technical, of art and science. Also at that intersection we have "New Media"—the use of computers and the Internet as multimodal communication devices that allow the expression of the human spirit through the visual arts, music, voice, and text. Thus we have the five areas of the informatics curriculum: mathematical foundations, distributed information, human computer interaction, social/organizational informatics, and new media.

The curriculum gives students a solid foundation in the five areas while encouraging them to specialize their training through informatics electives and by applying their informatics skills in a cognate area. Bridging the specialization and cognate areas is a year-long senior capstone project in which they will not only further specialize but learn practical skills, including teamwork. Central to the informatics major is the idea that students learn how information technology relates to a traditional discipline in the liberal arts or the professions. Therefore, students take 15-18 credit hours in a cognate area that both

grounds students in the discipline and emphasizes some combination of applications, implications, and foundations of information technology.

In addition to knowledge of core informatics and of informatics in the context of a traditional discipline, students also must take a set of general education courses to ensure that they can communicate clearly in both written and spoken English, read effectively, and reason quantitatively. They must be able to raise and rationally debate ethical concerns suggested by information technologies and their interactions with other people. Students also must have some knowledge of the world and its peoples, and their cultural, artistic, and scientific achievements. To this end, the general education requirement exposes students to the arts and humanities, social and historical studies, and the natural sciences.

The school offers a Bachelor of Science degree, four specialized professional master's degrees, and a variety of undergraduate and graduate programs in new media. Degrees in informatics not only combine existing course offerings, but also create innovative courses and curricula in new and emerging aspects of information technology. Informatics research is conducted at the Informatics Research Institute, which provides expanded educational opportunities for both undergraduate and graduate students.

The Development of the School of Informatics

The School of Informatics has grown out of years of planning and discussion, both at IUB and IUPUI. In the fall of 1997, a Task Force on Informatics, chaired by Richard Shiffrin (director of the Cognitive Science Program, IUB), was formed to study ways in which the university could capitalize on its strengths in information technology and to make a recommendation for further development. The membership of that task force came from both the IUB and IUPUI campuses and represented a wide range of disciplines involved in information technology. This task force report recommended that IU establish the School of Informatics.

In the summer of 1998, President Myles Brand created an Informatics Planning Committee chaired by Dennis Gannon (chair of computer science, IUB). The committee was charged with developing a detailed implementation plan for this metaschool. The committee document outlined how an undergraduate degree in informatics could fruitfully require a substantial number of courses in an area outside of the core informatics courses. It also called for the creation of a research institute and for a small core faculty. The Informatics Planning Committee gave the following motivation for the new school:

The movement of society into the information age involves developments in information science and technology, distributed information processing, computer and cognitive science, social aspects of dealing with distributed information, knowledge retrieval, distributed teaching and learning, information dissemination, and many related themes. All academic and research programs at IU are (or

shortly will be) affected by these developments. This task force recommends that a new school, tentatively titled "School of Informatics," be formed to promote teaching, training, and research in these areas, and thereby play a catalyzing role in this ongoing evolutionary process.

On January 1, 1999, President Brand appointed an interim dean, J. Michael Dunn (computer science and philosophy, IUB) and an interim associate dean, Darrell Bailey (music and new media, IUPUI). With the guidance of a multidisciplinary faculty advisory committee of more than 50 members, the school began to take shape. The Indiana Commission for Higher Education formally approved the school in November, authorizing IU to admit its first informatics majors in the fall of 2000.

One School, Two Campuses

The School of Informatics spans the IU Bloomington (IUB) and Indiana University Purdue University Indianapolis (IUPUI) campuses. By combining the strengths of these two campuses, the School of Informatics is able to create a unique environment that enables students to earn degrees with strong information technology components in arts, humanities, science, and the professions. The expert faculty and excellent technological resources foster a synthesis of academic disciplines and cultures. Faculty from several departments share developments in the fast-moving information technology areas through the School of Informatics and its degree programs. The school is actively forging cooperative arrangements with employers in the state and region and creating internships, cooperative education programs, and opportunities for learning through service.

Informatics Research Institute

Research and theory in informatics move rapidly to application and development. The faculty teaching in the School of Informatics participates in research activities and new applications of technology. As a result, faculty can transmit state-of-the-art knowledge to students. Indiana University is capitalizing on this great research strength in informatics with the formation of an Informatics Research Institute (IRI). IRI will conduct research in areas of emphasis shared with the School of Informatics, including: fundamental research in human computer interaction; fundamental research in capturing, managing, analyzing, and explaining information and making it available for its myriad uses; and expanding research into policy and socioeconomic issues arising from information technology.

Undergraduate Programs

The School of Informatics offers a Bachelor of Science in Informatics, a Bachelor of Science in Media Arts and Science, and an Associate of Science in Media Arts and Technology.

The very nature of these degrees, with the changing technologies and applications, requires that the content of each degree be continuously assessed and revised. Therefore, the faculty of the School of Informatics will periodically review and revise the curricula to ensure that students are prepared to meet contemporary workplace and intellectual demands. Please contact the School of Informatics office or

refer to our Web site at www.informatics.iupui.edu or newmedia.iupui.edu to confirm current program requirements.

Probationary Admission to New Media

Individuals who do not qualify for a direct admission or whose college grade point average is lower than 2.0 (C) may petition the New Media Program for probationary admission. Special consideration is given to adult learners and students returning after five or more years. Petitions are available from the New Media Program Office, SI 115, (317) 278-7666.

Deadline to enroll for the fall semester: July 15

Deadline to enroll for the spring semester: November 15

Deadline to enroll for the summer session: April 15

At the discretion of the associate dean, the New Media Program may admit on a probationary basis those students who do not meet the minimum requirements for direct admission. To be considered for probationary admission, students must be in the upper two-thirds of their high school graduating class and have combined SAT I scores of at least 650. Such students are counseled through the New Media Program Office and remain on probation until they have successfully raised their cumulative grade point average to 2.0 (C) and satisfied any other limitations set. Students admitted on probationary status become eligible for dismissal if they fail to achieve a minimum GPA of 2.3 during each semester until they have reached a minimum cumulative GPA of 2.0 (C). Students who do not achieve a cumulative grade point average of 2.0 (C) after two semesters, or 24 credit hours, will be dismissed.

Academic Regulations

Absences

From Final Examinations Students are required to adhere to the policies regarding final examinations as published in the *Schedule of Classes*.

From Scheduled Classes Illness is usually the only acceptable excuse for absence from class. Other absences must be explained to the satisfaction of the instructor, who will decide whether missed work may be made up.

Credit for Correspondence Courses

With prior approval, the School of Informatics will accept a maximum of two courses (6 credit hours total) by correspondence study to count toward the degree requirements. Only General Elective courses may be taken by correspondence. Distance learning courses and courses conducted online are not considered correspondence courses and, therefore, do not have a credit hour limit associated with them.

Degree Application

Candidates for graduation must file an application with the school by March 1 for December graduation and October 1 for May, June, or August graduation. Credits for all course work, except that of the current semester, must be recorded on the candidate's

Indiana University transcript at least one month prior to the date of graduation.

Statute of Limitations

Candidates for the bachelor's degree in informatics have the right to complete the degree requirements specified by the bulletin in effect at the time they entered Indiana University, provided that the required courses are available and that no more than eight calendar years have elapsed since the date of entry.

Grading Policies

The School of Informatics follows the official grading system of Indiana University, which is as follows:

A+ = 4.00	C+ = 2.30
A = 4.00	C = 2.00
A- = 3.70	C- = 1.70
B+ = 3.30	D+ = 1.30
B = 3.00	D = 1.00
B- = 2.70	D- = 0.70
F = 0.00	

The following grades carry no grade points: I (Incomplete), NC (No Credit), NR (No Report Filed by Instructor), P (Passing), R (Deferred), S (Satisfactory), and W (Withdrawn).

Grade Point Average

The cumulative grade point average is computed by dividing the total number of grade points earned by the total number of credit hours completed in which grades of A through F are assigned. Credit earned at another institution may be applied toward degree requirements, but the grades earned at other institutions will not be calculated in the Indiana University cumulative grade point average.

Change of Grade

A student desiring a change of grade should discuss the situation with the instructor. A change of grade must be justified. If the instructor agrees, the faculty member will file a Grade Change Authorization Form. If the instructor and student do not agree on a changed grade or if the instructor cannot be located, the student should discuss the matter with the chairperson or director of the department offering the course. Appeals unresolved at this level may be referred to the academic deans. Appeals of grades or requests for other actions normally will not be considered after one calendar year from the end of the semester in which the course in question was taken.

Incomplete Courses

A temporary grade of Incomplete (I) on the transcript indicates that the course work is mostly completed, generally 75 to 80 percent, and of passing quality.

It is the student's responsibility to contact the instructor to have a grade of Incomplete assigned. The instructor specifies the work to be done to remove the grade of Incomplete and the period of time allowed for completion. If the student fails to remove the Incomplete within one calendar year, the Office of the Registrar will change the grade to an F. The dean (or instructor) authorizes adjustments of this period in exceptional circumstances. A student who has

received a grade of Incomplete should not register for the course a second time but should arrange with the instructor to have the I changed to a letter grade upon completion of requirements, provided that it is done within the year.

Pass/Fail Option

Students in the School of Informatics may elect to take a maximum of 12 credit hours (4 courses) total under the Pass/Fail option. The procedure for declaring this option may be found in the *Schedule of Classes*. Special regulations affecting the Pass/Fail option for School of Informatics students are as follows:

1. Only one course per semester or one course per summer session may be taken under the Pass/Fail option.
2. School of Informatics students may not take any informatics course Pass/Fail. In addition, the Pass/Fail option may not be used for any course that satisfies admission or general-education electives requirements or the student's cognate area. Only university elective courses may be taken on a Pass/Fail basis.
3. A grade of P is not counted in the grade point average; a grade of F is included. Grades of P cannot be changed to any other letter grade.
4. Pass/Fail forms are available in the School of Informatics Office and the New Media Program Office.

R Grade

The R grade (Deferred) on the final report indicates that the nature of the course is such that the work of the student can be evaluated only after two or more terms. Courses in which an R grade is assigned will be announced as deferred grade courses in the *Schedule of Classes*.

FX Option

FX denotes an undergraduate level course originally failed and subsequently retaken.

The School of Informatics will calculate FX grades as grades of F for internal purposes and degree requirements. This calculation will apply to all categories of academic standing: good standing, probation and dismissal, class rank, and all grade point average requirements in the degree, including cumulative, semester, and major concentrations.

A student may use the FX option for purposes of the university transcript. An undergraduate student who has repeated a course previously failed may request to have only the second grade in that course counted in the student's grade point average as entered on the student's transcript. A student may exercise this FX option for no more than three courses, totaling no more than 10 credit hours. A student may use the FX option on the transcript only once for a given course. Requests for approval of FX courses should be made in consultation with the student's advisor or the New Media Program recorder.

Withdrawals

A grade of W (Withdrawn) is given automatically to the student who withdraws from courses during the automatic withdraw period as specified in the *Schedule of Classes*. After the automatic withdrawal period a student may withdraw only with the

permission of the dean. This approval is given only for urgent reasons related to extended illness or equivalent distress. The desire to avoid a low grade is not an acceptable reason for withdrawal from a course.

A grade of W does not affect the overall grade point average. A grade of F will be recorded on the official transcript if a student stops attending but does not officially withdraw from class. Students who alter their schedules, whether at their own initiative or by departmental directive, must follow withdrawal procedures. Students who do not assume this responsibility are jeopardizing their records because they will incur a failing grade in a course not properly dropped and will not receive credit for work done in a course not properly added.

To withdraw from any or all courses, students must submit to the registrar's office a schedule adjustment form that has been signed by the advisor. If forms are turned in no later than the beginning of classes, the course will be deleted from student records, except for complete withdrawals, which result in the grade of W (Withdrawal) on student records. If withdrawals are turned in by the end of the first half of the semester or summer session, the grade of W is automatically given and recorded on the official transcript. Thereafter, but prior to the end of the third quarter of classes, both the advisor's and the instructor's signatures are required for withdrawal, and the instructor designates the grade of W or F.

Upon notification from the IUPUI registrar's office that a student has accumulated eight (8) or more W's, the School of Informatics will send a letter of concern to the student, requesting an explanation. This notification will likewise remind students that their record of withdrawals from courses may jeopardize financial aid. Students with 10 W's may be regarded as not making the "reasonable academic progress" required to maintain eligibility for financial aid, and lack of such progress constitutes grounds for denying further financial aid.

Academic Standing

A student is in good academic standing for an Indiana University bachelor's degree when his or her semester grade point average is a minimum of 2.0 (C) for the last semester's course work, and when his or her cumulative grade point average is at least 2.0 (C). Students must be in good academic standing to graduate.

Class Standing

Class standing is based on the number of credit hours completed:

Freshman, fewer than 26 credits

Sophomore, 26 to 55 credits

Junior, 56 to 85 credits

Senior, 86 or more credits

Semester Load

A typical full-time academic load is 12 to 17 credit hours per semester, with the average load being approximately 15 credit hours. Students who expect to carry more than 17 credit hours a semester should have a cumulative grade point average of at least

3.0 (B) and have the approval from an academic advisor or dean.

Academic Probation

Students will be placed on academic probation if their cumulative or semester grade point average (semester grade index) is below 2.0. After one semester on probation, students who fail to return to good academic standing will be placed on critical probation. At the discretion of the dean, these students can be dismissed. If a student is given the opportunity to enroll under critical probation, the School of Informatics will establish strict conditions that must be met before that student will be allowed to register for future classes.

Dismissal

Students can be dismissed if they fail to return to good academic standing after one semester on critical probation. Students may also be dismissed if, in the opinion of the dean, they are not making satisfactory progress toward their degree.

Students eligible for dismissal will be notified in writing that they have been dismissed and will be withdrawn from classes for which they have registered.

Readmission

Dismissed students must petition the dean of the School of Informatics for readmission. A Petition for Readmission form must be filed by July 15 for fall, November 15 for spring, and April 15 for summer readmission. A student who has been dismissed for the second time is eligible to return to school only after being out of school for one regular semester and having petitioned successfully. A third dismissal is final. Dismissed students whose petitions are denied will not be allowed to register.

Academic Misconduct

Cheating

Cheating is dishonesty of any kind with respect to course assignments, alteration of records, or examinations. It is the student's responsibility not only to abstain from cheating, but also to avoid the appearance of cheating and to guard against making it possible for others to cheat. Any student who helps another student cheat is as guilty of cheating as the student who cheated. The student also should do everything possible to induce respect for the examining process and for honesty in the performance of assigned tasks in or out of class.

Plagiarism

Plagiarism is assuming credit for someone else's work, words, or ideas—whether or not the ideas are expressed in the borrower's own words. Honesty requires that any ideas or materials taken from another source for either written or oral use must be fully acknowledged. Plagiarism includes language or ideas taken from isolated formulas, sentences, or paragraphs; entire articles copied from books, periodicals, speeches; the writings or created works of other students; and materials assembled or collected by others in projects or collections without acknowledgement.

A faculty member who has evidence that a student is guilty of cheating or plagiarism will initiate the

process of determining the student's guilt or innocence. No penalty will be imposed until the student has been informed of the charge and of the evidence on which it is based and has been given an opportunity to present a defense. If the faculty member finds the student guilty, the faculty member assesses a penalty within the course and promptly reports the case in writing to the dean of the school or comparable head of the academic unit. The report should include the names of any other students who may be involved in the incident and recommendations for further action. The dean, in consultation with the faculty member if the latter so desires, will initiate any further disciplinary proceedings and inform the faculty member of any action taken. In every case, a record of the offense remains on file.

For further regulations, please refer to the *IU Code of Student Rights, Responsibilities, and Conduct*.

Student Grievance Procedures

All academic personnel (faculty, part-time instructors, and advisors) are expected to conform to the Code of Academic Ethics published in the *Indiana University Academic Handbook*. Students who feel that a faculty member has treated them unfairly may lodge a complaint by following these steps: (1) Discuss the matter with the faculty member or instructor. (2) If step 1 fails to resolve the situation, discuss the matter with the chairperson of the department or the coordinator of the program in which the faculty member is employed. The departmental chairperson will discuss it with the faculty member and seek some resolution. (3) If step 2 fails, the student may discuss the matter or file a written, signed complaint with the dean. Anonymous complaints will not be entertained. A copy of any written complaint will be forwarded to the faculty member, who may respond in writing. (4) When warranted, the dean may refer a written complaint and the faculty member's response to the Faculty Affairs Committee for further investigation and review. (5) The Faculty Affairs Committee will evaluate the complaint on the basis of university policy and may recommend to the dean that the instructor be sanctioned. If the committee finds the complaint to be unfounded, a letter to that effect may be placed in the student's file.

Informatics Degree Programs

Prior to each semester's enrollment, a faculty member or an academic advisor provides academic counseling for each student in the School of Informatics. Although academic counseling is intended to provide effective guidance, students are responsible for planning their own programs and for meeting the following degree requirements for graduation. Students are advised to read bulletin descriptions of all courses selected, paying careful attention to conditions concerning awarding of credit.

Bachelor of Science in Informatics

Degree Requirements

Students must successfully complete a minimum of 122 credit hours for the Bachelor of Science degree. The campus at which a student is admitted will award the degree. Students may transfer no more than 60 credit hours toward a Bachelor of Science degree. Students must complete the specific degree requirements of the School of Informatics as listed below.

1. Students must complete a minimum of 30 credit hours in courses at the 300-400 (junior-senior) level.
2. Students must have a minimum cumulative grade point average of 2.0 (C). Any course taken to satisfy the requirements of the major must be completed with a minimum grade of C-.
3. Students are expected to complete the requirements for their undergraduate degree within eight years of admission to the School of Informatics. Students are allowed to continue beyond this time period only at the discretion of the dean. If a student has not taken classes for three years or more, that student must satisfy program requirements of the School of Informatics in effect at the time of reactivation. Requests for deviation from requirements listed in the bulletin must be approved in writing by the dean, whose decision is final.
4. Courses that fulfill the requirements for a cognate area may also meet the general education distribution requirements.
5. Cognate area courses cannot count as informatics core courses or informatics elective courses.
6. If cognate area courses are equivalent to informatics core courses, students should substitute additional informatics elective courses in place of informatics core courses to meet the 30 credit hour requirement.
7. Courses that fulfill the requirements for a bachelor's degree in informatics also may apply to a minor outside of the School of Informatics.
8. Students must file a degree application with the School of Informatics office by March 1 for December graduation and October 1 for May, June, or August graduation. Failure to file by the deadline may delay the official date of graduation.

Course Requirements

The course work required for the B.S. in Informatics consists of five parts:

- Informatics Core Courses
- Informatics Electives
- Cognate Area Courses
- General-Education Requirements
- General Electives

Informatics Core Courses (30 cr.)

INFO I101 Introduction to Informatics (3 cr.)
 INFO I200 Information Representation (3 cr.)
 INFO I201 Mathematical Foundations of Informatics (4 cr.)
 INFO I202 Social Informatics (3 cr.)
 INFO I210 Information Infrastructure I (4 cr.)
 INFO I211 Information Infrastructure II (4 cr.)
 INFO I303 Organizational Informatics (3 cr.)

Capstone Project (6 cr.) INFO I450/I451 Design and Development of an Information System (3-3 cr.) (senior standing), two semesters **or** INFO I460/I461 Thesis (3-3 cr.) (senior standing), two semesters.

With prior approval from the dean, a student may substitute INFO I450/I451 and INFO I460/I461 with an equivalent capstone experience in another department, or complete 6 credit hours of INFO I420, Internship in Informatics Professional Practice, to fulfill the capstone experience. Internships require students to be at a junior or senior standing. A project or report must be submitted after the internship is completed.

Recommended Courses The following course is recommended for students who lack a strong computing background. This course is considered a general elective course.

INFO I112 Basic Tools of Informatics—Programming and Database Concepts (3 cr.)

Informatics Electives (9 cr.)

Select 9 credit hours from the following courses:
 BUS S302 Management Information Systems (3 cr.)
 BUS S305 Business Telecommunications (3 cr.)
 BUS S307 Data Management (3 cr.)
 BUS S310 Systems Analysis and Design (3 cr.)
 BUS S405 Alternative Development Methods and Systems (3 cr.)
 BUS S410 Systems Implementation (3 cr.)
 INFO I300 Human Computer Interaction (3 cr.)
 INFO I310 Multimedia Arts and Technology (3 cr.)
 INFO I320 Distributed Systems and Collaborative Computing (3 cr.)
 INFO I400 Topics in Informatics (3 cr.)
 JOUR J300 Journalism/Communications Law (3 cr.)
 JOUR J414 Globalization of Information (also International Newsgathering Systems) (3 cr.)
 SOC S319 Science, Technology, and Society (3 cr.)
 TEL T321 Telecommunications Policymaking (3 cr.)
 TEL T421 Economics of Communications (3 cr.)
 TEL T427 International Telecommunications (3 cr.)

Any course at the 300 level or above in computer technology, computer and information science, or new media may count as an elective.

Note: All of the above courses are subject to the successful completion of prerequisites or approval of the instructor. This list is expanding. Students should consult the School of Informatics office or refer to our Web site at informatics.indiana.edu or informatics.iupui.edu for the most current list of informatics electives. Students also may count other courses with informatics content as informatics electives upon approval of the dean.

Cognate Area Courses (15-18 cr.)

Departments offering informatics cognate courses are listed in the appendix. Students should, in consultation with their academic advisors, chose cognate areas before their sophomore year. Students should contact the School of Informatics office or refer to our Web site at [www.informatics.iupui.edu](http://informatics.iupui.edu) for the most current list of cognate areas.

General-Education Requirements (38-41 cr.)

English Composition (3 cr.)

This writing requirement may be fulfilled in any one of the following ways:

ENG W131 Elementary Composition I (3 cr.) with a grade of C (2.0) or better.

Writing (3 cr.)

ENG W231 Professional Writing Skills, an approved substitute (3 cr.), or completion of one intensive writing course at the 200 level or above after completing the English requirement.

Students must check the listings for courses in the *Schedule of Classes* each semester to make certain the course section they have chosen fulfills the requirement.

Oral Communication (3 cr.)

COMM R110 Fundamentals of Speech Communication (3 cr.)

Quantitative and Analytical Skills (6 cr.)

IUPUI:

1. Select one of the following: MATH M118 Finite Mathematics, M119 Brief Survey of Calculus I, M163 Integrated Calculus and Analytic Geometry I, or M164 Integrated Calculus.
2. Required: STAT 311 Introductory Probability (3 cr.) or MATH M368 Statistics for Informatics (3 cr.)

Natural Sciences (8 cr.)

Select a minimum of 8 credit hours from the courses listed below. At least one of the courses must be a laboratory course.

Anthropology ANTH A103 Human Origins and Prehistory (3 cr.)

Astronomy AST A100 The Solar System (3 cr.), A105 Stellar Astronomy (3 cr.)

Biology BIOL K101 Concepts of Biology I-Plants (5 cr.), K103 Concepts of Biology II-Animals (5 cr.), N100 Contemporary Biology (3 cr.), N107 Introduction to Zoology (4 cr.), N200 The Biology of Women (3 cr.), N212 Human Biology (2 cr.), N213 Human Biology Laboratory (1 cr.), N214 Human Biology (2 cr.), N215 Human Biology Laboratory (1 cr.), N217 Human Physiology (5 cr.), N251 Introduction to Microbiology (3 cr.), N322 Introductory Principles of Genetics (3 cr.)

Chemistry CHEM C100 The World of Chemistry (3 cr.), C101 Elementary Chemistry I (5 cr.), C102 Elementary Chemistry II (5 cr.), C105 Principles of Chemistry I (3 cr.), C106 Principles of Chemistry I (3 cr.)

Geography GEOG G107 Physical Systems of the Environment (3 cr.), G108 Physical Systems of the Environment: Laboratory (2 cr.), G185 Global Environmental Change (3 cr.), G303 Weather and Climate (3 cr.), G307 Biogeography: the Distribution of Life (3 cr.)

Geology GEOL G107 Environmental Geology (3 cr.), G117 Environmental Geology Laboratory (1 cr.), G109 Fundamentals of Earth History (3 cr.), G119 Fundamentals of Earth History Laboratory (1 cr.), G110 Physical Geology (3 cr.), G120 Physical Geology Laboratory (1 cr.), G206 Advanced

Physical Geology Laboratory (2 cr.), G115 Introduction to Oceanography (3 cr.), G132 Environmental Problems (3 cr.), G180 Dinosaurs (3 cr.)

Physics PHYS 100 Physics in the Modern World (5 cr.), P152 Mechanics (4 cr.), P200 Our Physical Environment (3 cr.), P218 General Physics (4 cr.), P219 General Physics (4 cr.), P251 Heat, Electricity, and Optics (5 cr.), P201 General Physics I (5 cr.), P202 General Physics II (5 cr.)

Psychology PSY B105 Psychology as a Biological Science (3 cr.)

Arts, Humanities, and Social Sciences (15 cr.)

Informatics students must have basic training in the arts, humanities, and social sciences, which will assist them in their lives and give them a broader perspective from which to approach the applications of information technology. The requirements for each campus are as follows:

Select one arts and humanities course (3 cr.) from the following:

AFRO A150 Afro-American Studies (3 cr.)
AMST A103 Topics in American Studies (3 cr.)
CLAS C205 Classical Mythology (3 cr.)
CMLT C190 Introduction to Film (3 cr.)
COMM T130 Introduction to Theatre (3 cr.)
ENG L105 Appreciation of Literature (3 cr.)
ENG L115 Literature for Today (3 cr.)
FLAC F200 World Cultures through Literature (3 cr.)
FOLK F101 Folklore (3 cr.)
HER H100 Art Appreciation (3 cr.)
HER H101 History of Art I (3 cr.)
HER H102 History of Art II (3 cr.)
HIST H105 American History I (3 cr.)
HIST H106 American History II (3 cr.)
HIST H108 Perspectives on the World to 1800 (3 cr.)
HIST H113 History of Western Civilization I (3 cr.)
HIST H217 The Nature of History (3 cr.)
PHIL P110 Introduction to Philosophy (3 cr.)
PHIL P120 Ethics (3 cr.)
REL R133 Introduction to Religion (3 cr.)
REL R173 American Religion (3 cr.)
REL R180 Introduction to Christianity (3 cr.)
REL R212 Comparative Religions (3 cr.)
MUS M174 Music for the Listener (3 cr.)
WOST W105 Women's Studies (3 cr.)

Select one social science course (3 cr.) from the following:

AFRO A150 Afro-American Studies (3 cr.)
ANTH A104 Culture and Society (3 cr.)
COMM C180 Interpersonal Communication (3 cr.)
ECON E101 Economics (3 cr.), ECON E201, or ECON E202
ENG G104 Language Awareness (3 cr.)
FOLK F101 Introduction to Folklore (3 cr.)
GEOG G110 Introduction to Human Geography (3 cr.)
GEOG G130 World Geography (3 cr.)
HIST H117 Introduction to Historical Analysis (3 cr.)
POLS Y101 Principles of Political Science (3 cr.)
POLS Y103 Introduction to American Politics (3 cr.)
POLS Y213 Introduction to Public Policy (3 cr.) or
SPEA V170 Introduction to Public Affairs (3 cr.)
POLS Y219 International Relations (3 cr.)
PSY B104 Psychology (3 cr.)

PSY B310 Life Span Development (3 cr.)
SOC R100 Sociology (3 cr.)
SOC R121 Social Problems (3 cr.)
WOST W105 Introduction to Women's Studies (3 cr.)

Select one comparative world cultures course (3 cr.) from the following:

ANTH A104 Culture and Society (3 cr.)
CLAS C205 Classical Mythology (3 cr.)
FLAC F200 World Cultures through Literature (3 cr.)
GEOG G110 Introduction to Human Geography (3 cr.)
HIST H108 Perspectives on the World to 1800 (3 cr.)
POLS Y217 Introduction to Comparative Politics (3 cr.)
REL R133 Introduction to Religion (3 cr.)
REL R212 Comparative Religions (3 cr.)

Select one ethics course (3 cr.) from the following:

REL R283 Religion, Ethics and Values (3 cr.)
REL R293 Ethics and World Religions (3 cr.)
REL R393 Comparative Religious Ethics (3 cr.)
PHIL P120 Ethics (3 cr.)
PHIL P325 Social Philosophy (3 cr.)
PHIL P326 Ethical Theory (3 cr.)
PHIL P393 Biomedical Ethics (3 cr.)
PHIL P494 Topics in Biomedical Ethics (3 cr.)

In addition, students must take a junior/senior integrator course (3 cr.). (See academic advisor.)
HIST H114 History of Western Civilization II (3 cr.)

General Electives (24-30 cr.)

The individual student, in consultation with an advisor, will decide courses for the remaining credits to fulfill additional career and/or personal interests. Students may take a maximum of 4 credit hours of HPER elective physical education courses numbered Exxx.

Dual Baccalaureate Degrees

In certain circumstances students may be permitted to pursue a B.S. in Informatics and complete an undergraduate degree in another degree-granting school of the university. Check with your academic advisor for more details.

Second Baccalaureate Degree

In certain cases the dean may admit bachelor's degree holders to candidacy for a second bachelor's degree. When such admission is granted, the candidates must earn at least 60 additional credit hours and meet the requirements of the School of Informatics. Students seeking second-degree candidacy should review the guidelines available from the informatics office. Students with a bachelor's degree who wish to further their education should also consider becoming qualified for admission to a graduate program.

Certificate and Minor in Informatics

The undergraduate minor or certificate allows a student majoring in another subject to get appropriate training in informatics and obtain certification as

someone who knows how to apply informatics tools to that subject area.

Certificate in Informatics

1. Minimum grade of 2.0 (C) in all courses taken for the certificate.
2. Students are required to complete 26 credit hours from the following list:
INFO I101 Introduction to Informatics (3 cr.)
INFO I200 Information Representation (3 cr.)
INFO I202 Social Informatics (3 cr.)
INFO I210 Information Infrastructure I (4 cr.), cross-listed with CSCI A201 Introduction to Programming I (IUB), and CSCI N331 Visual Basic Programming (IUPUI)
INFO I211 Information Infrastructure II (4 cr.), cross-listed with CSCI A202 Introduction to Programming II (IUB), and CSCI N345 Advanced Programming, Java (IUPUI)
INFO I300 Human Computer Interaction (3 cr.)
INFO I303 Organizational Informatics (3 cr.)
3. In addition students must take an additional course (3 cr.) from the informatics curriculum. These additional courses can be chosen from the listed electives for informatics and can therefore be taken in another department.

Minor in Informatics

1. Minimum grade of 2.0 (C) in all courses taken for the minor.
2. Students are required to take three courses from the following list:
INFO I101 Introduction to Informatics (3 cr.)
INFO I200 Information Representation (3 cr.)
INFO I202 Social Informatics (3 cr.)
INFO I210 Information Infrastructure I (4 cr.), cross-listed with CSCI A201 Introduction to Programming I (IUB) and CSCI N331 Visual Basic Programming (IUPUI)
INFO I211 Information Infrastructure II (4 cr.), cross-listed with CSCI A202 Introduction to Programming II (IUB) and CSCI N345 Advanced Programming, Java (IUPUI)
3. Students are required to take two courses from the following list of upper-level courses:
INFO I300 Human Computer Interaction (3 cr.)
INFO I303 Organizational Informatics (3 cr.)
4. Students must select one course from the list of approved informatics elective courses.

Minor in Business

Students pursuing a bachelor's degree in the School of Informatics may obtain a minor in business by successfully fulfilling the following requirements:

BUS A100 Basic Accounting Skills (1 cr.)
BUS A201 Introduction to Financial Accounting (3 cr.)
BUS A202 Introduction to Managerial Accounting (3 cr.)
ECON E201 Introduction to Microeconomics (3 cr.)
ECON E202 Introduction to Macroeconomics (3 cr.)
ECON E270 Introduction to Statistical Theory in Economics (3 cr.)
MATH M118 Finite Mathematics (3 cr.)
MATH M119 Brief Survey of Calculus I (3 cr.)

In addition, BUS K201 The Computer in Business, or its equivalent, must be completed with a minimum

grade of C prior to starting the integrative core. Students are required to take the integrative core, which is 9 credit hours taken together as a single educational unit (BUS F301 Financial Management, M301 Introduction to Marketing Management, and P301 Operations Management).

In addition to the 12 required courses listed above, BUS X204 Business Communications, BUS L302 Commercial Law I, and BUS Z302 Managing and Behavior in Organizations are recommended.

New Media Degree Programs, IUPUI

The New Media Program at IUPUI offers an Associate of Science in Media Arts and Technology, a Bachelor of Science in Media Arts and Science, and a Certificate in Internet Application Development; all provide an integrated approach to the study of new media. Focused on applied research and application, these degrees are oriented toward professional practice. Together, they encompass the design, development, management, integration, application, assessment, and deployment of new and digital media to communication.

The programs and requirements described apply in the New Media Program at IUPUI.

Associate of Science in Media Arts and Technology

Course Requirements

The course work required for the A.S. in Media Arts and Technology consists of three parts:

New Media Core Courses
General-Education Requirements
General Electives

Required New Media Core Courses (18 cr.)

CPT 115 Computer Information Systems Fundamentals (3 cr.)
CPT 140 Programming Constructs Lab (3 cr.)
CSCI N241 Introduction to Web Design (3 cr.)
ENG W131 English Composition I (3 cr.)
NEWM N100 Introduction to Digital Media Principles (3 cr.)
NEWM N101 Topics in Interactive Multimedia (3 cr.)

General-Education Requirements (6 cr.)

Communication Skills

COMM R110 Fundamentals of Speech (3 cr.)
ENG W132 English Composition II (3 cr.) **or** JOUR J200 Reporting, Writing, and Editing I (3 cr.)

Foreign Language (6 cr.)

Students must complete 6 credit hours in a foreign language. Chinese or Japanese is recommended.

Quantitative and Analytical Skills (6 cr.)

Select from the following:

MATH M111 Algebra (4 cr.) or higher-level course (excluding MATH 130, MATH 131, MATH 132)
MATH M153 Algebra and Trigonometry I (3 cr.)
PHIL P162 Practical Logic (3 cr.)
PHIL P265 Elementary Symbolic Logic (3 cr.)

Arts and Humanities (6 cr.)

Select from the following:

CMLT C190 Introduction to Film (3 cr.)
COMM T130 Theatre Appreciation (3 cr.)
HER H100 Art Appreciation (3 cr.)
MUS M174 Music for the Listener (3 cr.)
PHIL P120 Personal and Social Ethics (3 cr.)

Sciences (6 cr.)

Choose 6 credit hours from the courses offered in the following departments: astronomy, biology, chemistry, computer science, geography, physics, and/or psychology (PSY B105 Psychology only).

General Electives (12 cr.)

Select courses from the following schools or departments: art, computer science, computer technology, journalism, library and information science, music, and/or new media.

Bachelor of Science in Media Arts and Science

All students must meet the requirements as established by the faculty of the New Media Program and applied to all IUPUI New Media students. The New Media Program, Office of Student Affairs, Mary Cable Building 117, can answer questions about general-education courses and distribution requirements.

Degree Requirements

1. All IUPUI students must fulfill the following undergraduate requirements:
6 credit hours of Communication Skills (written and oral)
10 credit hours of Foreign Language
6 credit hours of Quantitative and Analytical Skills
6 credit hours of Arts and Humanities
6 credit hours of Social Sciences
2. A minimum of 122 credit hours is required for a New Media degree.
3. A minimum cumulative grade point average of 2.0 (C) is required for graduation.
4. A minimum of 36 credit hours must be at the 300-400 level. Courses taken at other institutions at the freshman and sophomore levels, regardless of title or description, will not be accepted in satisfaction of this requirement.
5. At least 12 credit hours of 300-400 level courses must be taken outside the major program as electives.
6. A maximum of 12 credit hours may be taken using the Pass/Fail option and applied to university electives only.
7. A minimum of 24 credit hours must be taken in the concentration/specialization area. For requirements in the concentration/ specialization area, refer to the plan of study, available from your advisor.

8. Any course in which a student receives a grade below C (2.0) may not be used to fulfill any requirement (a C- will not count).
9. A minimum of 26 credit hours of the work of the senior year must be completed at IUPUI except in the case of students transferring within the campuses of Indiana University. (See academic advisor for specific residency requirements.)
10. Credit to the degree will not be accepted for remedial courses.
11. Once a course has been applied toward one requirement, it cannot be used to satisfy a second requirement, except where explicitly stated otherwise. No course will be counted more than once toward graduation with the exception of variable titled courses, seminars, independent study, internships, and other special courses.

Course Requirements

The course work required for the B.S. in Media Arts and Science consists of six parts:

Required New Media Core Courses
Web-Based Computer Programming
Concentration/Specialization Courses
New Media Electives
General-Education Requirements
University Electives

The New Media Program recommends that students complete English W131 or Honors W140 during the first semester or as soon afterward as placement test scores and course availability allow. Students whose placement test scores indicate a need to take English W001 should enroll in that course their first semester. Students must earn a minimum grade of C in English W001 to advance to English W131. It also is recommended that English W132, W150, or JOUR J200 be taken the semester following successful completion of English W131.

Speech Communication R110 (3 cr.) Students with previously acquired competency in public speaking may be eligible for special credit and exemption from the requirement; contact the chairperson of the Department of Communication Studies, Cavanaugh Hall 309, or call (317) 274-0566.

Foreign Language Requirement Placement Test Students with previous experience in a foreign language should take the Foreign Language Placement Test at the Testing Center to assess their level of language preparation. Students who complete the course into which they were placed with a minimum grade of C are eligible for special credit at a reduced fee for the appropriate lower-division course(s) that precede the course taken. Foreign language special credit counts toward graduation and toward the foreign language requirement.

Courses numbered 117 are reserved for students who have never studied the language before. Students who have had two or more years of formal study in a language may take a 117-level course in that language as a refresher course before enrolling in a more advanced course. Their work will be graded on a Satisfactory/Fail (S/F) basis. A grade of S is equivalent to a minimum grade of C.

Nonnative Speakers Students for whom English is not a first language may be exempted from the foreign language requirement, without credit, by completion of English W131 and W132 with a minimum grade of C or better.

Native speakers of English who have achieved elementary or intermediate proficiency in a foreign language by studying or living in a country where the language is spoken should confer with the foreign languages and cultures department for placement in the correct level of that foreign language.

Advanced Courses In addition to advanced courses in one's major, the new media student should conduct in-depth study in other areas. Courses at the 300 level or above must be completed in five areas: Required Core (6 cr.), Web-Based Programming (9 cr.), Concentration or Specialization (12 cr.), New Media Electives (12 cr.), and University Electives (12 cr.).

Required New Media Core Courses (18 cr.)

CSCI N241 Introduction to Web Design (3 cr.)
CSCI N301 Fundamental Computer Science Concepts (3 cr.)
ENG W131 English Composition I (3 cr.)
NEWM N100 Introduction to Digital Media Principles (3 cr.)
NEWM N101 Topics in Interactive Multimedia (3 cr.)
NEWM N499 Capstone: Portfolio or Project (3 cr.)

Web-Based Computer Programming (9 cr.)

Select from the following:

CSCI N305 C Language Programming (3 cr.)
CSCI N331 Visual Basic Programming (3 cr.)
CSCI N341 Web Programming (3 cr.)
CSCI N345 Advanced Programming, Java (3 cr.)
CSCI N351 Introduction to Multimedia Programming (3 cr.)
CSCI N355 VRML (3 cr.)

Concentration/Specialization Courses (24 cr.)

Select from one of the following areas (of which 12 credits must be at the 300 level or above):

Area 1 Computer science, computer technology, library information and science, and/or new media

Area 2 Art, journalism, music, and/or new media

New Media Electives (12 cr.)

Students must complete 12 credit hours of media arts and science electives at the 300 level or above.

General-Education Requirements

Communication Skills

COMM R110 Fundamentals of Speech Communication (3 cr.)
ENG W132 English Composition II (3 cr.) **or** JOUR J200 Reporting, Writing, and Editing I (3 cr.)

Foreign Language (10 cr.)

Students must complete 10 credit hours in a foreign language. Asian languages are recommended.

Quantitative and Analytical Skills (6 cr.)

Select from the following:

MATH M111 Algebra (4 cr.) or higher level course (excluding MATH 130, MATH 131, MATH 132)
MATH M153 Algebra and Trigonometry I (3 cr.)
PHIL P162 Logic (3 cr.)
PHIL P265 Introduction to Symbolic Logic (3 cr.)

Arts and Humanities (6 cr.)

Select from the following:

CMLT C190 Introduction to Film (3 cr.)
COMM T130 Introduction to Theatre (3 cr.)
FOLK F101 Introduction to Folklore (3 cr.)
HER H100 Art Appreciation (3 cr.)
MUS M174 Music for the Listener (3 cr.)
PHIL P120 Personal and Social Ethics (3 cr.)
REL R133 Introduction to Religion (3 cr.)
WOST W105 Introduction to Women's Studies (3 cr.)

Social Sciences (6 cr.)

Select from the following:

AFRO A150 Afro-American Studies (3 cr.)
AMST A103 American Studies (3 cr.)
ANTH A104 Anthropology (3 cr.)
ECON E101 Economics (3 cr.), E201 Introduction to Microeconomics (3 cr.), or E202 Introduction to Macroeconomics (3 cr.)
GEOG G110 Geography (3 cr.)
LING G104 Linguistics (3 cr.)
POLS Y101 Principles of Political Science (3 cr.) or POLS Y103 Introduction to American Politics (3 cr.)
PSY B104 Psychology (3 cr.)
SOC R100 Sociology (3 cr.)

University Electives (25 cr.) of which 12 hours must be completed at the 300 level or above:

Suggested electives:

COMM C228 Discussion and Group Methods (3 cr.)
COMM M373 Film and Video Documentary (3 cr.)
COMM C380 Organizational Communication (3 cr.)
HER E101 Beginning Drawing (3 cr.)
HER E105 Beginning Painting (3 cr.)
HER E201 Basic Photography (3 cr.)
JOUR J210 Visual Communication (3 cr.)
JOUR J300 Communication Law (3 cr.)
PSY B366 Concepts and Applications in Organizational Psychology (3 cr.)
STAT B305 Statistics (3 cr.)

or

Any course from the following schools or departments: art, computer science, computer technology, journalism, library and information science, music, and/or new media.

Certificate in Internet Application Development

1. Minimum grade of 2.0 (C) in all courses taken for the certificate.
2. Students are required to complete 27 credit hours from the following list:

Design Courses

HER A371 Introduction to Interactive Design (3 cr.)
HER R201 Visual Research Web Basics (3 cr.)

Writing Courses

JOUR J100 Computer Methods for Journalists (3 cr.)
JOUR J200 Reporting, Writing, and Editing I (P: ENG W131) (3 cr.)

Audio Courses

MUS Z320 Foundations of Music Production (3 cr.)
MUS Z320 Multimedia Design Applications (3 cr.)

Programming Course

CSCI 241 Introduction to Web Design (3 cr.)

Application Development Courses

CPT 323 Multimedia Systems (3 cr.) **or**
CPT 423 Electronic Commerce (3 cr.)

Elective (3 cr.)

Students complete 3 credit hours in an internship, independent guided study application project, or an approved elective course from one of the following academic departments or schools: art, computer science, computer technology, journalism, library and information science, music, and/or new media.

Graduate Program

Given the rapid and apparently unlimited growth of this new field at all levels of competence, each master's degree program serves students who need education in the use of information technologies to enhance their job performance or employment prospects.

The School of Informatics offers five master's degrees:

Master of Science in Bioinformatics
Master of Science in Chemical Informatics
Master of Science in Health Informatics
Master of Science in Human Computer Interaction
Master of Science in Media Arts and Science (see the "Media Arts and Science" section in this bulletin for policies, regulations, and requirements).

Bioinformatics, Chemical Informatics, Health Informatics, and Human Computer Interaction require 36 credits, including the completion of two common graduate core courses. Media Arts and Science requires 30 credits, including the completion of 18 credit hours of core courses.

Application Procedures

Students holding a bachelor's degree from an accredited four-year collegiate institution are eligible to apply for admission. Admission is selective. The Admission Committee evaluates applicants' abilities to succeed academically and their potential to contribute to the program. The master's degree is designed for students who seek additional professional education in informatics to complement knowledge in such diverse disciplines as computer science and technology, graphics, visualization, electronic networking and media communication, library and information science, telecommunications, psychology, cognitive science, journalism, medicine, health and nursing, biology, and chemistry. Most graduates of the School of Informatics will emerge as highly sought-after employees in a burgeoning information industry.

The master's degrees are focused on developing specialized skills and knowledge in information and

information technology, with particular application to a specific field of study or practice. Each degree is an interdisciplinary endeavor that combines course work and field experiences from a traditional subject area or discipline with intensive study of information and technology. Because these specialized skills are developed and applied differently in these different fields, specific requirements are established for each degree and have a content-specific rationale.

Application Procedures for U.S. Citizens

Requests for domestic applications should be directed to the School of Informatics.

Completed applications should be sent to
Graduate Admissions Committee
School of Informatics

IUPUI
Mary Cable Building, Room 115
525 N. Blackford Street
Indianapolis, IN 46202-3120
E-mail: info@informatics.iupui.edu
www.informatics.iupui.edu

Application Procedures for International Students

Requests for information and completed applications should be sent to

Office of International Affairs
IUPUI
Union Building, Room 207
620 Union Drive
Indianapolis, IN 46202-5167
Phone: (317) 274-7294
E-mail: oia@iupui.edu
www.iupui.edu/~oia/admissions

Application Deadlines

Applications will not be acted upon until all required documents have been received, including transcripts, letters of recommendation, application fee, GRE scores, and TOEFL scores for all nonnative English speakers. Admission to the School of Informatics, excluding the New Media Program is decided on a rolling basis. In order to allow time for processing and making financial aid decisions, applicants must meet the following deadlines for matriculation in fall:

Informatics	January 15
New Media	
<i>Fall</i>	March 15
<i>Spring</i>	November 15

Financial aid decisions will be made at the same time that admission decisions are made. Students must submit all application materials by the deadline to be considered for financial support.

Admission to the Master's Programs

Successful applicants for admission to the master's programs must demonstrate skills and knowledge in an academic field relevant to the particular master's program (e.g., biology for bioinformatics). Promising applicants who have deficiencies may, with faculty help, select courses that will provide instruction to overcome deficiencies and meet admission

requirements. However, the courses will not count toward the total number of credits required for the advanced degree.

- Degree requirement: bachelor's degree with demonstrated technical skills from an accredited college or university.
- Minimum overall GPA of 3.0, on a 4.0 point scale.
- Three letters of recommendation from individuals in positions to evaluate the applicant's professional promise. Indiana University reserves the right to validate the source of the letters received.
- Scores from the general Graduate Record Examination (GRE), taken within the last five years. Subject tests are recommended if appropriate to the degree.
- Personal statement or sample of creative work.

Each application for admission is carefully evaluated by the admissions committee for the appropriate degree. Applicants to all degree programs must do the following:

1. Submit applications to the School of Informatics, or, if necessary, to the Office of International Affairs.
2. Pay a nonrefundable graduate application fee to Indiana University.
3. Submit three Application Reference Forms completed by individuals familiar with the applicant's activities and potential to succeed in graduate work. These forms are included in the application packet.
4. Arrange for official transcripts to be sent from all colleges and universities attended by the applicant. Transcripts indicating "issued to student" are not considered official. An official transcript bears the original signature of the registrar and/or original seal of the issuing institution. Transcripts should be mailed directly by a registrar, or given to the applicant by the registrar in a sealed and signed envelope. International applicants should refer to the guidelines outlined in the International Graduate Application for Admission form. If the student has not completed all undergraduate course work at the time of application, the admission decision will be based on information available at the time of application. However, a final transcript showing graduation must be submitted before enrollment. Students who have taken course work on any Indiana University campus do not need to submit an Indiana University transcript.
5. Submit scores from the Graduate Record Examination (GRE). Only the General Exam is required; however, an appropriate subject exam (e.g., chemistry for chemical informatics) may be helpful in determining the applicant's potential.
6. The school does not specify minimum scores, preferring instead to use the full information available in the applicant's dossier. The Media Arts and Science Program does not require GRE scores. Information concerning these examinations may be obtained from Graduate Record Examinations, Educational Testing Service, CN 6000, Princeton, NJ 08541-6000; www.gre.org.
7. If your native language is not English, you must submit results of the Test of English as a Foreign

Language (TOEFL). The TOEFL is required of all nonnative English speakers. A minimum TOEFL score of 600 is required. The TOEFL may be waived if a B.S. or M.S. degree has been earned in the United States. Registration information can be requested from TOEFL/TSE Publications, P.O. Box 6154, Princeton, NJ 08541-6154; www.toefl.org.

8. Submit a personal statement (300-500 words) describing the your educational background and reasons for pursuing graduate study. In addition, some programs may require a sample of creative work or professional accomplishment, which may include written work, a computer program, multimedia presentation, portfolio, etc. Submitted materials should support the applicant's career intentions and plans. Contact the Office of Informatics for further information.

Financial Assistance

Graduate Assistantships

Students may compete for a limited number of graduate assistantship appointments. Assistantships are awarded solely on the basis of merit. These appointments constitute the most common type of financial assistance offered through the School of Informatics. Graduate assistantships include a stipend and a fee scholarship. Students will be assigned to work in areas supporting the mission of the School of Informatics. Students applying for admission to the program should complete the financial aid form if they wish to be considered for a graduate assistantship.

Fellowships and Scholarships

Although the majority of financial aid is in the form of assistantships, a limited number of fellowships and scholarships are also available. Those receiving fellowships and scholarships are not required to perform any duties in return for the stipend. These awards are also made solely on a merit basis. Students applying for admission to the program are considered for fellowships and scholarships; there is no additional application to complete. Awards are normally granted for an academic year. The school is developing new sources of funding, and students are encouraged to review the Informatics Web site for up-to-date information or call the School of Informatics.

Grants

The GradGrants Center (GGC) is a free service available to all enrolled graduate students on all campuses of Indiana University. The GGC provides information and training to assist graduate students in their search for funding to further graduate study at Indiana University. The Indianapolis campus has a center to provide these services for IUPUI graduate students located in the Union Building, Room 518; (317) 274-4023.

Loans

Domestic students who need financial assistance not provided by any of the awards already mentioned are eligible to apply for need-based financial aid. For graduate students, most need-based aid is in the form of student loans. For further information, contact the Office of Student Financial Aid, IUPUI, Cavanaugh Hall 103, 425 University Blvd., Indianapolis, IN 46202; (317) 274-4162.

Academic Regulations

Applicability of Degree Requirements

Students may choose to complete either the specific degree requirements published in the appropriate bulletin at the time of entry into the university or those in the bulletin current at the time of graduation.

Residency Requirements

The campus at which a student is admitted will certify and award the degree.

Intercampus Transfer

Students enrolled in the School of Informatics at any campus of Indiana University may transfer to the School of Informatics on another campus, provided they are in good standing.

Transfer of Credit

A maximum of 8 credit hours of graduate course work with grades of B (3.0) or better may be transferred from other accredited colleges and universities and applied to the School of Informatics degree programs. The transfer must be approved by the dean, and is not an automatic occurrence. (See "Revalidation" section below).

Revalidation

Normally, a course may not be counted toward degree requirements if it has been completed more than five years prior to the awarding of the degree for master's students. The advisor may recommend to the dean that course work taken prior to the deadline be revalidated if it can be demonstrated that the knowledge contained in the course(s) remains current. Currency of knowledge may be demonstrated by: (a) passing an examination specifically on the material covered by the course; (b) passing a more advanced course in the same subject area; (c) passing a comprehensive examination in which the student demonstrates substantial knowledge of the content of the course; or (d) publishing scholarly research demonstrating knowledge of the content of the course.

Courses taken while an undergraduate and counted toward the requirements of a baccalaureate degree may not also be counted toward a graduate degree.

Grading System

The official grading system is as follows:

A = 4.0	D+ = 1.3
A- = 3.7	D = 1.0
B+ = 3.3	D- = 0.7
B = 3.0	F = Failed
B- = 2.7	I = Incomplete
C+ = 2.3	W = Withdrawn
C = 2.0	R = Deferred
C- = 1.7	NR = No grade reported

A minimum of a B (3.0) average in graduate work is required for continuance in graduate study. Courses completed with grades below C (2.0) are not counted

toward degree requirements, but such grades will be counted in calculating a student's grade point average. Note that no work may be transferred from another institution unless the grade is B (3.0) or higher.

Incomplete

Incomplete may be given only if the completed portion of a student's work is of passing quality. It is the responsibility of the student to satisfy the requirements of that course within one calendar year from the date on which the Incomplete is recorded. The student is expected to finish all necessary work in time for the instructor to assign a regular grade before the expiration of this time period. If the student is unable to do so, it is the student's responsibility to notify the instructor of the course and the graduate advisor within the year to request an extension of time. Every overdue Incomplete will be changed to a grade of F after one calendar year.

Withdrawals

Because deadlines for withdrawal from courses may vary by campus and/or school, students should check with the current campus *Schedule of Classes* to verify deadlines and procedures.

Course Waivers

Requests for waiver of specific courses or requirements on the basis of previous course work are to be submitted in writing to the dean.

Credit Earned in Nondegree Status

Not more than 9 hours of graduate credit completed as a nondegree student may be credited toward a School of Informatics graduate degree. Deficiency courses do not apply to the 9 credit hours.

Academic Standing

Students are considered to be in good standing during any semester in which their academic grade point average is at least 3.0 (B) for both their last semester's course work and for the cumulative average of all course work completed. Only courses with grades of C (2.0) or above may be counted toward degree requirements. However, grades below C are used in computing the cumulative grade point average, even if a course is repeated and a higher grade is earned.

Academic Probation

Students are placed on probation following a semester in which their graduate cumulative or semester grade point average falls below 3.0.

Students on probation are required to attain an average of at least 3.0 for all graduate course work completed by the end of the next semester of full-time enrollment or its equivalent (9 credit hours). Failure to do so is cause for dismissal.

Academic Integrity

Academic integrity requires that students take credit only for their own ideas and efforts. Misconduct, including cheating, fabrication, plagiarism, interference, or facilitating academic dishonesty, are prohibited because they undermine the bonds of trust and cooperation among members of this community

and between us and those who may depend on our knowledge and integrity. Complete details are contained in the Indiana University *Code of Student Rights, Responsibilities, and Conduct*.

Thesis

Depending on particular degree requirements, students will complete either a capstone project or a research-based thesis under the guidance of an advisor. More details are given in the appropriate section for each program.

Degree Conferral

For all students seeking a master's degree, an application for the degree must be filed with the School of Informatics at least 60 days before the date anticipated for degree conferral. All degree requirements must be completed at least 30 days prior to the date of expected degree conferral, including submission of the bound copies of the master's thesis (if required for degree).

Time Requirements

All requirements for the M.S. degrees must be met within five consecutive calendar years from the date of completion of the first credited (i.e., nondeficiency) course.

Master of Science Degrees

Master of Science in Bioinformatics (36 cr.)

Bioinformatics is a pure and applied science dealing with the collection, management, analysis, and dissemination of biological data and knowledge, especially with respect to genetics and molecular biology. A Master of Science in Bioinformatics addresses needs for education in this rapidly growing field of bioinformatics. This is an interdisciplinary program at the Bloomington and Indianapolis campuses, involving faculty from the Departments of Biology, Chemistry, Computer Science, Library and Information Science, and others.

The end of the twentieth century saw an explosion of data discovered from living organisms, especially in areas of molecular biology and genetics. The goal of bioinformatics is to deal with this flood of data, organize it as comprehensible information, and turn it into useful knowledge. For example, the flow of information from the Human Genome Project will revolutionize medical practice and biological research in this century and enable an understanding of most inherited diseases. Study of the genomic code, coupled with new understanding of its organization, regulation, and function in cells, and in development of organisms, is forming the basis for designing new treatments for many diseases and for understanding and modulating health problems associated with aging. Genome information is quickly becoming the basis for designing new drugs. It is also central to the improvement of genomes of economically important crops and animals.

Experienced bioinformaticians are limited in number, while the need for them in industry, academe, and government has grown rapidly. Full understanding and application of this new data requires a large body

of intelligent, creative, and experienced scientists with a firm understanding of both computation and biology. There is a current and projected shortage of such people and a pressing need for educational institutions to teach bioinformatics. In the mid-1990s, bioscience industries discovered the importance of bioinformatics to their goals and quickly stripped academic centers of many experts who would normally serve to educate a new generation of students. New directions following the unraveling of the genomic code also point to greatly increased information flow and an increasing scale in the application of computing methods to biosciences.

The Department of Computer and Information Science and the Department of Biology in the School of Science collaborate closely with the Department of Biochemistry and Molecular Biology and other departments in the School of Medicine. Many ongoing projects funded by federal agencies need the knowledge and technology of bioinformatics. The Department of Computer and Information Science has obtained funds from the Research Laboratories at Eli Lilly and Company for research in bioinformatics. Individual faculty members in the Department of Computer and Information Science and the Department of Biochemistry and Molecular Biology are also engaged in a research initiative in bioinformatics.

Degree Requirements

This curriculum includes a set of core and elective courses covering concepts and training in bioinformatics, biosciences and informatics, and computer sciences. A primary goal of this curriculum is to provide scientists with a strong foundation in the areas of computation/informatics and biology, though their primary focus may be in one or the other area. The integration of knowledge from biology, computing, mathematics, and related areas will receive particular emphasis. Students with different levels of background in biology, computing, and informatics sciences are encouraged to apply. Students with academic deficiencies will address these through individually planned programs of suggested course work. Students will gain experience in the applications of computing methods to biology information by completing course work and non-classroom original research projects. Informatics and biosciences faculty will supervise these projects jointly.

Prerequisites Prospective students for graduate study in bioinformatics will be expected to have introductory background in both informatics and biology. Students need approximately 6 undergraduate credit hours of course work in biology, covering areas of molecular biology, genetics, and evolution. Students need approximately 6 undergraduate credit hours of computer science or informatics course work, covering areas of programming, discrete structures, and data structures. Students not having completed these prerequisites may need to take appropriate undergraduate courses to ensure regular progress through the program.

To receive the master's degree, the applicant must be admitted as a graduate student and complete 36 credits in bioinformatics-related courses accepted for graduate credit, including 9 credit hours of core

courses, 21 credit hours of electives, and 6 credit hours of project or thesis credit.

Core Courses (9 cr.)

CSCI 548 Topics: Introduction to Bioinformatics (3 cr.)

INFO I501 Introduction to Informatics (3 cr.)

INFO I502 Information Management (3 cr.)

Electives (21 cr.)

Select from the following:

BIOL 484 Cellular Biochemistry (3 cr.)

BIOL 507 Molecular Biology (3 cr.)

BIOL 540 Topics in Biotechnology (3 cr.)

BIOL 548 Techniques in Biotechnology (3 cr.)

BIOL 641 Microbial Genetics (2 cr.)

CSCI 503 Operating Systems (3 cr.)

CSCI 504 Concepts in Computer Organization (3 cr.)

CSCI 506 Management of the Software Development Process (3 cr.)

CSCI 507 Object-Oriented Design and Programming (3 cr.)

CSCI 520 Computational Methods in Analysis (3 cr.)

CSCI 536 Computer Networks (3 cr.)

CSCI 541 Database Systems (3 cr.)

CSCI 542 Distributed Database Systems (3 cr.)

CSCI 565 Programming Languages (3 cr.)

CSCI 580 Analysis of Algorithms (3 cr.)

CSCI 590 Artificial Intelligence (3 cr.)

CSCI 590 Data Mining (3 cr.)

GRAD G865 Fundamental Molecular Biology (2-5 cr.)

MGEN Q580 Basic Human Genetics (3 cr.)

MGEN Q630 Genetics of Populations (3 cr.)

STAT 511 Statistical Methods I (3 cr.)

STAT 514 Designs of Experiments (3 cr.)

Project/Thesis (6 cr.)

Students must perform an independent research project and produce a report or thesis for public defense. The project might consist of a research paper, a designed artifact, or other appropriate deliverable format.

INFO I692 Thesis/Project in Bioinformatics (1-6 cr.)

Master of Science in Chemical Informatics (36 cr.)

The size of the information problem in chemistry is staggering. It can be judged from the fact that Chemical Abstracts Service adds over 700,000 new compounds to its database annually. Massive amounts of physical and chemical property data are generated each year for new and existing chemical substances. The avalanche of data can bury a chemical research project unless chemists find ways to cope with it. Fortunately, those trained in chemical informatics provide the tools to acquire, organize, and evaluate data, yielding new insights for further chemical research. Chemical informatics companies combine molecular simulation and data analysis techniques with high-quality graphical visualization to obtain stunning results. Chemical informatics thus helps chemists investigate new problems and organize and analyze scientific data to develop novel compounds, materials, and processes through the application of information technology.

The curriculum for a Master of Science in Chemical Informatics in the School of Informatics educates students in the following major aspects of chemical informatics:

- **Information Acquisition:** Methods used for generating and collecting data empirically (experimentation) or from theory (molecular simulation)
- **Information Management:** Storage and retrieval of information
- **Information Use:** Data analysis, correlation, and application to problems in the chemical and biochemical sciences

Degree Requirements

Prerequisites Prospective students for graduate study in chemical informatics will be expected to have training in both informatics and chemistry. If academic background is insufficient, some additional course work may be necessary to ensure progress through the program.

Students with a Bachelor's Degree in Computer Science, Informatics, or Other Information Fields

Students with a B.S. in any information-based field will need approximately 22 undergraduate credit hours of course work in chemistry to provide sufficient background for course work required to study for the M.S. in Chemical Informatics. This includes:

General Chemistry with laboratory (two semesters)
Organic Chemistry (two semesters)
Biological Chemistry or Biochemistry (one semester)
Physical Chemistry (one semester)

Students with a Bachelor's Degree in Chemistry (B.A. or B.S.)

Students with undergraduate degrees in chemistry (typically 25 or more credits in chemistry or biochemistry courses) will need some preparative work in informatics. Four or more credits in formal informatics course work, computer science courses relevant to informatics, or bioinformatics or chemical informatics course work will provide the necessary background for graduate study. Students not having completed this study may need to take appropriate undergraduate courses to ensure regular progress through the program.

Core Courses (12 cr.)

CHEM 696 Special Topics in Chemistry (3-3 cr.), course content changes each semester. Students register for 3 credit hours for two semesters.

INFO I501 Introduction to Informatics (3 cr.)

INFO I502 Information Management (3 cr.), P: INFO I501

Electives (18 cr., at least 6 of which must be in chemistry or biochemistry)

Biochemistry

BIOC B807 Enzyme Chemistry (3 cr.)

BIOC G865 Fundamentals of Molecular Biology (3 cr.)

BIOL K484 Cellular Biochemistry (3 cr.)

BIOL 507 Molecular Biology (3 cr.)

CHEM 533 Introduction to Biochemistry (3 cr.)

CHEM 636 Biochemistry (3 cr.)

CSCI 548 Introduction to Bioinformatics (3 cr.)

Analytical Chemistry

CHEM 621 Advanced Analytical Chemistry (3 cr.)

CHEM 629 Chromatography (3 cr.)

CHEM 696 Chemometrics (3 cr.)

Organic Chemistry

CHEM 651 Advanced Organic Chemistry (3 cr.)

CHEM 652 Synthetic Organic Chemistry (3 cr.)

Physical Chemistry

CHEM 575 Intermediate Physical Chemistry (3 cr.)
 CHEM 672 Quantum Chemistry (3 cr.)
 CHEM 675 Chemical Kinetics (3 cr.)
 CHEM 696 Introduction to Computational Chemistry (3 cr.)

Computer Science

CSCI 542 Distributed Database Systems (3 cr.)
 CSCI 590 Artificial Intelligence (3 cr.)
 CSCI 590 Data Mining (3 cr.)

New Media

NEWM N502 Digital Media Motion and Simulation Methods (3 cr.)
 NEWM N504 Advanced Interactive Design Application (3 cr.)

Project/Thesis or Internship (6 cr. taken in the second year)

As a capstone experience, students will complete 6 credits of research, a project, or an internship under the guidance of a chemistry faculty member.

INFO I693 Informatics Thesis/Project (1-6 cr.)

Master of Science in Health Informatics (36 cr.)

The School of Informatics offers a Master of Science in Health Informatics to address needs emanating from the changing health care environment. Research and educational programs in medical, nursing, and health informatics are growing at a rapid rate nationally. This can be attributed in large part to the increasing complexity and importance of health care reimbursement, which has created a need for improved classification, storage, and analysis of medical information to establish best clinical practice and cost efficiency. Users of health informatics include clinicians, researchers, health care educators, health organization administrators, health policy analysts, health information administrators, quality improvement directors, and chief information officers. Those who are professionally involved in health informatics work in a variety of settings, including acute care hospitals, managed care organizations, consulting firms, claims and reimbursement organizations, accounting firms, home health care agencies, long-term care facilities, corrections facilities, pharmaceutical companies, behavioral health organizations, insurance companies, state and federal health care agencies, and health computing industries.

The IUPUI campus is uniquely suited to conduct graduate education in health informatics through its health schools, research centers, and affiliated academic units. The School of Medicine has a long history of fellowship training and research in medical informatics. The School of Allied Health Sciences offers an undergraduate degree in health information administration. This baccalaureate program prepares professionals to plan and manage health information systems. The curriculum is grounded in computer systems, health law, medical documentation, and organizational management. The School of Nursing, which is the largest in the country, is in the forefront of the development of nursing informatics, with a particular emphasis on consumer health informatics. The School of Library and Information Science offers

master's and doctoral degrees in information science, which are distinguished by their sociotechnical orientation. The school also has a broad research thrust exploring the interconnection of social, behavioral, and technological issues associated with the use of information and communication technologies. The Department of Computer and Information Science offers a master's degree in computer science with a specialization in databases and data mining. The department supports the computer science requirements of the M.S. in Health Informatics. Faculty in the department are externally funded to conduct research in medical informatics and bioinformatics. Other academic programs at Indianapolis and Bloomington in public health, applied health sciences, and hospital administration offer important supporting course work.

Degree Requirements

To receive the Master of Science in Health Informatics, students must complete 36 credit hours of prescribed courses. In addition to core courses, students choose, in consultation with advisors, a set of concentration electives. Examples of concentration areas include: 1) knowledge-based health care information, 2) health services informatics, and 3) clinical databases.

Knowledge-based health care information focuses on the storage, organization, evaluation, and dissemination of health and medical knowledge (e.g., textbooks, journals, other media, and information) to support evidence-based practice and patient education. End-users of knowledge-based health care information include clinicians, patients, health educators, and health planners.

Health services informatics focuses on information management in health care systems and addresses such diverse needs as patient flow, resource allocation, billing, and compiling and reporting of data. This involves developing information systems for processing and storing clinical data, complying with medical documentation requirements of accrediting and governmental agencies, and setting health information policies.

Study of clinical databases focuses on the storage of medical data and linkage of electronic systems. Study in this concentration would be based on an electronic medical record system that would include existing standards and coding, links between health-related databases, and data extraction for clinical care and management. Research would be oriented to using such databases to learn more about disease and health maintenance (e.g., clinical epidemiology, pharmacoepidemiology, public health informatics, and nursing informatics).

Prerequisites (12 cr.)

All students applying for the M.S. in Health Informatics should have prerequisite courses or equivalencies in the following areas:
 Anatomy, biology, or physiology at the 200-level or higher (3 cr.)
 Computer Science CSCI N301 (3 cr.) or equivalent Medical Terminology (3 cr.)
 Statistics (3 cr.)

To receive a master's degree, the applicant must be admitted as a graduate student and complete 36 credits in health informatics-related courses

numbered 500 or above as listed below. The following courses are offered at IUPUI; courses may also be taken at IUB with approval of the advisor.

Core Courses (15 cr.)

All of the following are required:

INFO I501 Introduction to Informatics (3 cr.)
 INFO I502 Information Management (3 cr.), P: INFO I501
 INFO I503 Social Impact of Information Technologies (3 cr.)
 INFO I530 Seminar in Health Informatics Applications (3 cr.)

Choose one of the following:

PBHL G651 Biostatistics for Public Health (3 cr.)
 NURS R505 Measurement and Data Analysis (3 cr.)
 SPEA H518 Public Health Statistics (3 cr.)

Electives (15 cr.)

Electives may be selected from existing graduate courses in numerous schools and other academic units, depending on student need. Of these 15 credit hours, 9 credit hours must be selected from the list of informatics and computer science courses. (This list is neither exhaustive nor exclusive.) In consultation with their advisors, students will have wide latitude in choosing appropriate courses.

Informatics and Computer Science

CSCI 503 Operating Systems (3 cr.)
 CSCI 504 Concepts in Computer Organization (3 cr.)
 CSCI 536 Computer Networks (3 cr.)
 CSCI 541 Database Systems (3 cr.)
 CSCI 542 Distributed Database Systems (3 cr.)
 CSCI 565 Programming Languages (3 cr.)
 CSCI 590 Topics: Artificial Intelligence (3 cr.)
 NURS T619 Computer Technologies (3 cr.)
 SLIS I542 Introduction to Human Computer Interaction (3 cr.)
 SLIS I570 Online Information Retrieval (3 cr.)
 SLIS I571 Information Networking (3 cr.)
 SLIS I574 Communication in Electronic Environments (3 cr.)
 SPEA H628 Health Care Information Systems (3 cr.)
 SPEA V516 Public Management Information Systems (3 cr.)
 SPEA V519 Database Management Systems (3 cr.)
 SPEA V613 Implementation of Information Systems (3 cr.)

Design, Measurement, and Evaluation

AHLT W520 Research Methodology for Allied Health (3 cr.)
 AHLT W570 Research Communication in Allied Health (3 cr.)
 ECON E528 Economic Analysis of Health Care (3 cr.)
 NURS L650 Data Analysis for Clinical and Administrative Decision Making (3 cr.)
 NURS R500 Nursing Research Methods I (3 cr.)
 NURS R600 Nursing Research Methods II (3 cr.)
 NURS R601 Instrument Development for Health Behavior I (2 cr.)
 NURS R602 Instrument Development for Health Behavior II (2 cr.)
 NURS R720 Metanalysis of Health/Illness or Disease/Illness (3 cr.)
 NURS T617 Evaluation in Nursing (3 cr.)
 PBHL G652 Biostatistics II (3 cr.)
 SPEA H517 Managerial Epidemiology (3 cr.)

SPEA H521 Management Sciences for Health Services Administration (3 cr.)
 SPEA H615 Strategic Management, Decision Making, and Evaluation II (3 cr.)
 SPEA V541 Benefit-Cost Analysis of Public and Environmental Policies (3 cr.)

Health Sciences

AHLT W510 Trends and Issues in Allied Health (3 cr.)
 AHLT W560 Topics: Patient-Centered Outcomes Research (3 cr.)
 HPER C501 Program Planning in Public Health Education (3 cr.)
 HPER C515 Health Education in Clinical Settings (3 cr.)
 NURS M560 Teaching Strategies to Promote Client Functioning (3 cr.)
 PBHL P503 Public Health Community Project (3 cr.)
 SOC R515 Sociology of Health and Illness (3 cr.)
 SPEA H501 Introduction to Health and Medical Care Organization (3 cr.)
 SPEA H503 Health Systems Organization and Management (3 cr.)

Project/Thesis (6 cr.)

As a capstone experience, students will complete either a project, planned in conjunction with their advisor, or a research-based thesis, supervised by a research advisor and a thesis committee. Core and support faculty from the participating schools will have a wide range of research interests that will provide graduate students with choices relevant to their concentration areas.

INFO I691 Thesis/Project in Health Informatics (1-6 cr.)

Master of Science in Human Computer Interaction (36 cr.), Fall 2003

Human Computer Interaction (HCI) is the branch of informatics that studies and supports the design, development, and implementation of humanly usable and socially acceptable information technologies. The goal of the field is to shape new media and develop tools that will support human use, augment human learning, enhance communication, and lead to more acceptable technological developments at the individual and the social levels.

Research on HCI draws extensively on mainstream informatics concerns with cognition, communication, representation, and computation. HCI professionals seek to identify the nature and parameters of human information processing at the interface, design forms of representation that support human interpretation and use of information, reliably and validly test new technologies for usability and acceptability, and determine how information technologies change working practices and social activities.

Regular job postings for HCI personnel express a desire for professionals with suitable scientific training in design and evaluation, and increasingly, applied social scientists with technological skills are finding employment in the software industry as HCI professionals. At Indiana University, the HCI program draws faculty campuswide to provide the appropriate blend of multidisciplinary expertise required to study this new field.

Degree Requirements

To receive the master's degree, the applicant must be admitted as a graduate student and complete 36 credits of graduate study in HCI.

Core Courses (12 cr.)

INFO I501 Introduction to Informatics (3 cr.)
 INFO I502 Information Management (3 cr.), P: INFO I501
 SLIS L542 Introduction to HCI (3 cr.)
 EDUC Y502 Intermediate Statistics (or equivalent) (3 cr.)

Electives (18 cr.)

Students may choose from among the following and must take courses from at least two departments.

BUS S601 MIS Research Topics in Applications Systems Design (3 cr.)
 BUS S602 MIS Research Topics in Administration and Technology (3 cr.)
 CSCI A546 User Interface Programming (3 cr.)
 CSCI B581 Advanced Computer Graphics (3 cr.)
 CSCI B582 Image Synthesis (3 cr.)
 CSCI B665 Software Engineering Management (3 cr.)
 CSCI B666 Software Management Implementation (1-3 cr.)
 CSCI B669 Topics in Database and Information Systems (1-6 cr.)
 CSCI B689 Topics in Graphics and Human-Computer Interaction (1-6 cr.)
 CSCI P565-P566 Software Engineering I-II (6 cr.)
 EDUC P544 Applied Cognition and Learning Strategies (3 cr.)
 EDUC P600 Topical Seminar in Learning Cognition and Instruction (3 cr.)
 EDUC R685 Human Computer Interface Design (1-3 cr.)
 JOUR J530 Issues in New Communication Technologies (3 cr.)
 PSY P450 Human Factors (graduate credit available) (3 cr.)
 SLIS L576 Digital Libraries (3 cr.)
 SLIS L578 User Interface Design for Information Systems (3 cr.)
 SLIS L642 Information Usage and the Cognitive Artifact (HCI II) (3 cr.)
 SLIS L697 Advanced Topics in Information Systems (1-4 cr.)
 SPHS S522 Digital Signal Processing (3 cr.)
 TEL T541 Processes and Effects: Individual Level Theory and Research (3 cr.)
 TEL T571 Applied Emotional and Cognitive Psychology Theory (3 cr.)

Project/Thesis (6 cr.)

Students will perform an independent research project and produce a report or thesis, a designed artifact, or other appropriate deliverable format for public defense.

INFO I694 Thesis/Project in Human-Computer Interaction (1-6 cr.)

Master of Science in Media Arts and Science

This master's degree develops specialized skills and knowledge in new media with the purpose of preparing students to manage and conduct research on Internet and Web environments and multimedia

production techniques. Like all new media programs, the master's degree is focused on applied research and application. The course of study is oriented toward professional practice and relies on a theory base drawn from fundamental disciplines that study communication as sight, sound, and motion.

Skills and knowledge embedded in this degree program include: Web site and multimedia research design, computer programming and database programming, multimedia authoring language skills and data collection, software, multimedia development of audio and video impact on users, digital graphics assessment techniques, and writing and editing of materials for multimedia evaluation and assessment.

The Master of Science in Media Arts and Science includes required courses in new media with specific emphasis on the philosophy and principles of the field as well as techniques using technology in communication and cybernetic/human interaction theory. Graduates will be prepared to conduct research in the development and effects of using communication technology in academic, social, and vocational settings. Opportunity will exist within the field for students to conduct applied research in media-related disciplines. Career options include 2D/3D artist, animator, creative technologist, multimedia producer, director of software development, electronic publisher, hypermedia specialist, Internet developer, graphic artist, interactive trainer, music producer, multimedia developer, composer, techno-artist, video/audio editor, webmaster, and Web site designer.

Admissions Requirements

In addition to those requirements outlined above (see "Admission to Master's Programs"), students who apply for the Master of Science in Media Arts and Science must attend an interview to demonstrate their computer literacy, personal skills, and professional experience; and present a portfolio. The portfolio can include a multimedia application and/or an original computer software program.

Degree Requirements

The Master of Science in Media Arts and Science is a 30 credit hour program that includes a core of 18 hours and a specialization area of 12 hours. Electives will be available which allow students to specialize in "major field" areas within the new media graduate curriculum.

Core Courses (18 cr.)

N500 Foundations of Media Arts Production (3 cr.)
 N501 TPCS: Principles of Multimedia Technology (3 cr.)
 N502 Digital Media Motion and Simulation Methods (3 cr.)
 N503 Multimedia Design Applications (3 cr.)
 N504 Advanced Interactive Design Applications (3 cr.)
 N505 Internship in Media Arts and Technology (3 cr.)
 N506 Media Arts and Technology Major Project (3 cr.)
 N510 Web Database Concepts (3 cr.)

Specialization Core Courses (12 cr.)

Specialization courses must be selected from the 400- and 500- level courses offered in the Schools of Informatics, Art, Journalism, Music, Library and Information Science, or the Departments of Computer Science and Computer Technology.

Area 1: Computer science, computer technology, library information and science, and new media

Area 2: Art, journalism, music, and new media

Prior to enrollment in the courses, the School of New Media academic advisor and the head of graduate studies must approve the specialization core.

A minimum of B+ in each course of the new media graduate core is required for continuance in graduate study. Courses in the specialization area must be completed with the minimum grade of B. Courses below a B are not counted toward degree requirements, but such grades will be counted in calculating a student's grade point average.

Undergraduate Course Descriptions

School of Informatics (INFO)

The abbreviation "P" refers to the course prerequisite or prerequisites. The number of hours of credit given for a course is indicated in parentheses following the course title.

I101 Introduction to Informatics (3 cr.)

P: computer literacy. Emphasis on topics in human computer interaction and human factors; collaborative technologies; group problem solving; ethics, privacy, and ownership of information and information sources; information representation and the information life cycle; the transformation of data to information; and futuristic thinking.

I110 Basic Tools of Informatics I—

Programming Concepts (1.5 cr.) P: CSCI A110, CSCI A111, or equivalent computing experience. Introduction to programming for users of computer systems. Emphasis on problem-solving techniques. An eight-week lecture and laboratory course. Cross-listed with CSCI A112. Credit given for only one of the following: INFO I110, CSCI A112, or INFO I112.

I111 Basic Tools of Informatics II—

Introduction to Databases (1.5 cr.) P: CSCI A110, CSCI A111, or equivalent computing experience. Introduction to database design concepts. Entering and modifying data, accessing data using visual tools and SQL, building database applications using forms and application development tools. Emphasis on problem-solving techniques. An eight-week lecture and laboratory course. Cross-listed with CSCI A114. Credit given for only one of the following: INFO I111, CSCI A114, or INFO I112.

I112 Basic Tools of Informatics—Programming and Database Concepts (3 cr.) Introduction to programming and database design concepts. Emphasis on problem-solving and information-gathering techniques. The lecture will discuss general concepts and syntax. The lab will focus on the use of software, including a programming language, modifying and accessing data using visual tools, and building database applications using forms and development tools. Lecture and laboratory. Offered on the IUPUI campus only. Equivalent to the combination of INFO I110 and INFO I111. Credit given for INFO I112 and either INFO I110 or INFO I111.

I200 Information Representation (3 cr.)

P: knowledge of a programming language as can be obtained from INFO I110, INFO I210, or similar courses. Recommended prerequisite or concurrent: INFO I201. The basic structure of information representation in social and scientific applications. Representational structures and approaches from many disciplines are introduced: philosophical theories of classification and categorization; information access and representation on the World Wide Web; object-oriented design and relational databases; AI knowledge representation and discovery. Cross-listed with COGS Q200. Credit given for either INFO I200 or COGS Q200.

I201 Mathematical Foundations of Informatics (4 cr.)

Recommended prerequisite or concurrent: INFO I101. An introduction to the suite of mathematical and logical tools used in information sciences, including finite mathematics, automata and computability theory, elementary probability and statistics, and basics of classical information theory. Cross-listed with COGS Q250. Credit given for either INFO I201 or COGS Q250.

I202 Social Informatics (3 cr.)

P: INFO I101. Introduces the social and behavioral foundations of informatics. Theoretical approaches to how technology is used from psychological and sociotechnical perspectives. Examples of how current and emerging technologies such as games, e-mail, and electronic commerce are affecting daily lives, social relations, work, and leisure time.

I210 Information Infrastructure I (4 cr.)

Recommended prerequisite or concurrent: INFO I101. The software architecture of information systems. Basic concepts of systems and applications programming. Cross-listed with CSCI A201. Credit given for only one of the following: INFO I210, CSCI N331 (IUPUI), or CSCI A201 (IUB).

I211 Information Infrastructure II (4 cr.)

P: INFO I210. The systems architecture of distributed applications. Advanced programming, including an introduction to the programming of graphical systems. Cross-listed with CSCI A202. Credit given for only one of the following: INFO I211, CSCI N345 (IUPUI), CSCI A202 (IUB), or CSCI C212 (IUB).

I300 Human Computer Interaction (3 cr.)

P: INFO I211. The analysis of human factors and the design of computer application interfaces. A survey of current best practices with an eye toward what future technologies will allow.

I303 Organizational Informatics (3 cr.)

P: INFO I101. Examines the various needs, uses, and consequences of information in organizational contexts. Topics include organizational types and characteristics, functional areas and business processes, information-based products and services, the use of and redefining role of information technology, the changing character of work life and organizational practices, sociotechnical structures, and the rise and transformation of information-based industries. Credit given for either INFO I303 or SPEA V369.

I310 Multimedia Arts: History, Criticism, and

Technology (3 cr.) This course studies how the paradigm shift to a digital world will affect humanity. The course will consider the evolution of media arts and its underlying principles of communications.

Students will study application development paradigms in current practice. Readings, lectures, class discussions, and research papers.

I320 Distributed Systems and Collaborative Computing (3 cr.)

P: INFO I211. An introductory treatment of distributed systems and programming. Topics range from the distributed and object models of computation to advanced concepts, such as remote method invocations, object brokers, object services, open systems, and future trends for distributed information systems.

I400 Topics in Informatics (1-3 cr.) P: at least junior standing or permission of instructor. Variable topic. Emphasis is on new developments and research in informatics. Can be repeated twice for credit when topics vary, subject to approval of the dean.

I420 Internship in Informatics Professional

Practice (3-6 cr.) P: approval of dean and completion of 100- and 200- level requirements in informatics. Students gain professional work experience in an industry or research organization setting, using skills and knowledge acquired in informatics course work.

I450/451 Design and Development of an

Information System (3-3 cr.) P: senior standing and approval of the dean. System design and development present both technical and managerial problems with which students will be familiar from their undergraduate course work. This course puts these lessons into practice as students work in teams to develop an information system. Examples of course projects include design and development of a database for a business or academic application, preparation and presentation of an interactive media performance or exhibit, or design and implementation of a simulated environment (virtual reality).

I460/461 Senior Thesis (3-3 cr.)

P: senior standing and approval of the dean. The senior student prepares and presents a thesis: a substantial, typically multichapter paper based on a well-planned research or scholarly project, as determined by the student and a sponsoring faculty member.

I499 Readings and Research in Informatics

(1-3 cr.) P: consent of instructor and completion of 100- and 200- level requirements in informatics. Independent readings and research related to a topic of special interest to the student. Written report required.

New Media Program, IUPUI (NEWM)

The abbreviation "P" refers to the course prerequisite or prerequisites. The number of hours of credit given for a course is indicated in parentheses following the course title.

N100 Introduction to Digital Media Principles

(3 cr.) The development of interactive multimedia requires principles garnered from a variety of disciplines. Through readings, critiques, exercises and discussion, students will explore what makes an interactive multimedia application successful and what types of applications are best suited to interactive multimedia. This course provides an introduction to the design of interactive multimedia drawing upon user interface design, task analysis, analysis of audience characteristics, and usability testing, as well

as design and editing principles from animation and video production.

N101 Topics in Interactive Multimedia (3 cr.) P: NEWM N100. Interactive multimedia is a rapidly evolving field that is significantly influenced by changes in theory, storage media, computing hardware, authoring/presentation software and communication capabilities in disciplines such as music, art, and journalism. Students will be exposed to recent trends through the development of interactive media projects for use on multiple platforms, the Internet, and CD-ROM.

N110 Visualizing Information (3 cr.) A course to sketch visualization: perspective, projection, and actually "seeing" the world around us. The projects will be using traditional media in the beginning and then computer shading, shadows, and lighting.

N175 Digital Media I: Vector Imaging (3 cr.) P: NEWM N101. Vector graphics are produced using traditional visualization (sketches) and computer methods. Color theory, geometric construction, and rendering techniques are utilized in vector-based graphic creation for use in new media applications (Illustrator).

N180 Digital Media II: Raster Imaging (3 cr.) P: NEWM N101. Raster graphics are produced using traditional visualization (sketches) and computer methods. Topics will include image composition, realistic representation, digital imaging for new media, color mode and palette usage, material and value representation (PhotoShop).

N200 Desktop Tools for Digital Media (3 cr.) P: NEWM N101. An introduction to the principles of multimedia creation and digital effects. The class will focus on a number of different software programs including Adobe Premiere, Director Authorware, Adobe PhotoShop, SoftImage 3D, Houdini, Kodak Cineon, and 3D Studio Max. Authoring, video, and sound editing computer applications, as well as cyberspace protocols and language, are engaged.

N201 Design Issues in Digital Media (3 cr.) P: N101. Introductory course that will equip students with strategies in assembling visuals applicable to any medium. It will explore composition strategies; visual literacy and awareness; and principles of the visual display of quantitative information. The course will begin with traditional visual media and move into digital forms to give the student an awareness and sensibility to work in any medium. Projects, lectures, discussion, and writing assignments serve as a survey of best practice.

N204 Introduction to Interactive Media (3 cr.) P: NEWM N101. The creation of interactive multimedia products for multiplatform delivery. Topics include: the multimedia production process, audience analysis, hardware and software requirements, authoring tools, scripting, content development, interface design, distribution, and development strategies. Concentration will be on practical applications for interactive multimedia (Director).

N210 Introduction to Digital Sound (3 cr.) P: NEWM N101. An introduction to digital sound creation and editing. Topics will focus on analog sound techniques and equipment, analog to digital conversion, basic editing, formats and conversions, digital to analog conversion, and basic sound effect

techniques for new media (Soundforge and Cool Edit 16).

N215 Online Document Development (3 cr.) P: NEWM N101. An introductory course for the creation, publication, and management of documents and images for online distribution. Topics include an introduction to Web site development, portable document formats, online publishing, document conversion, file exchanges, and image preparation (Dreamweaver).

N230 Introduction to Game Design and Development (3 cr.) P: NEWM N101, NEWM N175, NEWM N180. An introduction course to "video" game design and development for entertainment. Topics include game theory, design and development of computer-based games, current game delivery systems and software, the commercial development cycle, case studies of current games, ethical issues including the current game rating system, emerging technical developments in game development, and current game trends. Students will develop new levels of existing games.

N235 Introduction to Computer Simulation/Animation (3 cr.) P: NEWM N101. An introductory course covering applied three-dimensional computer graphic animation for students interested in the use of design, time, and motion study; surface texture mapping; lighting; color; and the technology required to produce computer animations for commercial applications in manufacturing design, marketing, training, gaming, Web creation, and entertainment (3D Studio Max).

N240 Introduction to Digital Video (3 cr.) P: NEWM N101. An introductory course covering applied video techniques for digital media production and introducing the basics of equipment associated with analog and digital video production. Designed for students interested in the use of design, time, and motion study; lighting; color; and the technology required to produce video for commercial applications in manufacturing design, marketing, training, gaming, Web creation, and entertainment (Adobe Premiere).

N250 Team Building in Technology (3 cr.) P: NEWM N101. This methods course helps students improve their effectiveness in solving problems and expand their critical thinking when working in groups. This course is practical in orientation, including the interpersonal process, decision-making styles, problem-solving concepts and procedures, the creative effort, conflict resolution, leadership, and assessment. Students develop projects with objectives, requirements, and constraints; client requests and implementation of the design solution. They execute the design plan and evaluate the final project.

N295 Career Enrichment Cooperative (3 cr.) P: sophomore standing and approval of the dean. A semester of external career experiences designed to enrich the student's preparedness for entering the workforce. Periodic meetings with faculty advisors and a comprehensive written report on the experience detailing the intern's activities and reactions is required.

N300 Digital Media Production (3 cr.) P: NEWM N101. This is an advanced course demanding

innovational design and technical skills to meet systematic studio work on complex computational undertakings. From this base, students conceive, observe, and analyze multimedia and cyber-communication projects. Students learn digital skills and tools through lectures and hands-on experimentation, including creative process and evaluation. Combines the production of journalism, music composition, and animation/simulation, with computer transmission of imaging, sound, and video.

N302 Media Simulation Methods (3 cr.) P: NEWM N101. A study of the fundamentals and methods of building and using computer-based simulation models, including the utility of simulation as a decision support tool; representing queuing systems in a computer model; simulated sampling from distributions of input variables; point and interval estimates of expected values of output variables; and the design of simulation sampling experiments.

N304 Interactive Media Applications (3 cr.) P: NEWM N204. Digital design methodology and techniques, control and timing, machine organization, instruction sequencing, and data flow control; control unit implementation by means of hardware and microprogramming; synchronization of input/output operations with interface design (Director 2).

N311 The Digital Paradigm Shift: Effects in International Cultures and Society (3 cr.) This course teaches how the paradigm shift to a digital world will affect international cultures and societies. A study of the major paradigm shifts in reference to culture and society as well as the effect for the future for humanity as a culture. Readings, lectures, class discussions, and papers with supported citations.

N315 Online Document Development II (3 cr.) P: NEWM N215. Advanced creation, publication, and management of interactive publications for online distribution with the inclusion of emerging technologies for a media-rich experience. Topics include interactive Web site development, animations for the Web, online interactive design, document conversion, file exchanges, and digital media development for online usage (Dreamweaver, Flash, DeBabilizer, Fireworks).

N330 Game Design, Development, and Production (3 cr.) P: NEWM N230. Advanced game development by producing interactive computer-based games. The process learned in N230 will be put into practice by developing a story, characters, programming, and an interactive game based on current trends in game development. Use of actual game development systems for current console gaming systems.

N335 Computer-Based Character Simulation/Animation II (3 cr.) P: NEWM N235. This course takes the basics of computer animation to the next level by including character animation. Topics include character development, modeling for character animation, 3D painting for custom texture, character animation techniques, and more advanced topics in relation to animation, such as particle systems (3D Studio Max, Bryce, 3D Painter).

N340 Digital Video Production (3 cr.) P: NEWM N240. An advanced course covering applied video techniques for digital media production. More

features for creating, editing, and producing digital video will be explored through collaborative production. Designed for students interested in the use of more advanced techniques utilizing video (After Effects).

N400 Imaging and Digital Media Seminar (3 cr.) Variable titled course designed to bring guest speakers from industry as well as other disciplines on campus to expose students to the wide realm of new media and how it can be utilized in each discipline. Class discussions, assigned readings, and research papers.

N410 History and Theory of Digital Media (3 cr.) Examines the history of computer-based media, technologies, and the digital information age. Topics include studying historical components and developments, current digital media, and research speculation towards the future of digital media and technologies.

N420 Multimedia Project Development (3 cr.) This course will focus on total project design and development of interactive multimedia applications. Topics to be covered include system design and development, selection of appropriate hardware and software platforms, use of productivity tools, project management, dynamics of team-based project development, cost analysis, prototyping, pilot testing, and other evaluation techniques. Students will work in teams to develop large-scale projects.

N435 Computer Simulation/Animation III Production (3 cr.) P: NEWM N335. An advanced class in working with computer animation. This class will focus more on greater story development and on a commercially finished product. Topics will include outputting techniques for broadcast usage, incorporation of digital sound and music, good story and character development, and development process with focus on end product.

N440 DV and CGI Special Effects (3 cr.) P: NEWM N340 and CSCI N345. An advanced course covering computer-generated imagery and special effects techniques for video production as utilized in the industry. Techniques for creating special effects, video shooting for effects, and the use of effects to aid in the telling of a story. Topics include the integration of text, graphics, sound, video, and animation into video development software. Editing and producing special effects will be explored through projects (After Effects, Elastic Reality, Boris FX).

N450 Usability Principles for New Media Interfaces (3 cr.) Principles of HCI and use experience modeling through a focused study of theory and application design, usability, and usability testing in the context of new media product development. Methods to validate new media design solutions are applied.

N475 Research in Design Methods (3 cr.) This course is designed to give students an understanding of the advanced concepts of theoretical topics, simulation modeling, and analysis concepts. Investigate applications of simulation in systems characterized by probabilistic behavior and where artists compete for scarce resources.

N485 Seminar in New Media (3 cr.) Current trends, problems, best practices, and developments in new media. Students pursue a special interest and share information and experience with the group.

This course is an in-depth exploration of topics and issues at the forefront of new media. Seminar format with research papers and class discussion/presentations.

N490 Independent Study (1-6 cr.) Research and practical experience in various areas of new media as selected by the student prior to registration, outlined in consultation with the instructor and approved by the program advisor. Total credit of Internship/Independent Study cannot exceed 9 credit hours.

N495 Enrichment Internship (3 cr.) P: junior standing and approval of program advisor. Industry, corporate, or similar experience in new media-oriented employment. Projects jointly arranged, coordinated, and evaluated by faculty and industrial supervisors. Apply during the semester prior to desired internship.

N499 Capstone Experience (3 cr.) The capstone experience culminates the student's major and integrates the student's learning across the field. Students select a particular area of interest in new media and may elect an internship or project in media arts and technology in collaboration with their academic advisor. Requirements vary depending upon choice of internship or project. To be taken during the senior year.

Graduate Course Descriptions

School of Informatics

The abbreviation "P" refers to the course prerequisite or prerequisites. The number of hours of credit given for a course is indicated in parentheses following the course title.

INFO 1501 Introduction to Informatics (3 cr.) Basic information representation and processing; searching and organization; evaluation and analysis of information. Internet-based information access tools; ethics and economics of information sharing.

INFO 1502 Information Management (3 cr.) P: INFO 1501. Survey of information organization in medical-, health-, chemical-, and biology-related areas; basic techniques of the physical database structures and models, data access strategies, management, and indexing of massively large files; analysis and representation of structured and semistructured medical/clinical/chemical/biological data sets.

INFO 1503 Social Impact of Information Technologies (3 cr.) An overview of important social, legal, and ethical issues raised by information technology.

INFO 1590 Topics in Informatics (1-3 cr.)

Bioinformatics

BIOL 1519 Bioinformatics: Theory and Application (3 cr.) Biosequence analysis, sequence alignment and assembly; RNA structure, protein, and molecular modeling; genomics and proteomics; gene and function discovery above the sequence level; phylogenetic analysis including parsimony, maximum

likelihood, and related concepts; information and machine learning; artificial intelligence, neural networks, hidden Markov models; visual and graphical analysis in bioinformatics; worldwide biologic databases (use, management, analysis, federation, and access); experimental design and data collection techniques; scientific and statistical data analysis; database and data mining methods; network and Internet methods.

BIOL 1529 Bioinformatics in Molecular Biology and Genetics: Practical Applications (4 cr.) P: two semesters of programming experience or equivalent, knowledge of Unix operating system. Emphasis on problem solving with molecular biology data; biosequence analysis methods; practical software engineering in bioinformatics; methods in data collection, management, analysis and distribution; Internet client-server methods applied to genomic databases; lecture and laboratory.

CSCI 548 Introduction to Bioinformatics (3 cr.) Analysis of biological data employing various computational methods to obtain useful information in the emerging area of bioinformatics. Topics include: structures, functions, and evolution of proteins and nucleic acids; and retrieval and interpretation of bioinformation from the Internet. Learning principles, algorithms and software for sequence alignment, similarity search of sequence databases, estimation of phylogenetic trees, structural prediction, and functional inference.

INFO 1532 Seminar in Bioinformatics (1-3 cr.) Presentation and discussion of new topics in bioinformatics as seminar by students. Concentration on a particular area each semester to be announced before registration.

INFO 1552 Independent Study in Bioinformatics (1-3 cr.) Independent study under the direction of a faculty member, culminating in a written report. May be repeated for credit.

INFO 1692 Thesis/Project in Bioinformatics (1-6 cr.)

Chemical Informatics

C571 Chemical Information Technology (3 cr.) Chemical structure and data representation and search systems, bioinformatics, chemical information and database systems, laboratory information management systems, spectral and crystallographic databases, chemical reaction databases, patent information management systems, commercial chemical information databases, electronic chemical publishing systems.

C572 Computational Chemistry and Molecular Modeling (3 cr.) Molecular modeling: computer models of molecules and their behavior in gas and condensed phases; implicit and explicit solvation models; quantum and molecular mechanics; search strategies for conformational analysis, geometry optimization methods; information content from Monte Carlo and molecular dynamics simulations. Statistics and chemometrics, multivariate statistics and experimental design, numerical methods, calibration and chemical analysis, optimization methods, artificial intelligence; molecular design, de novo design techniques; quantitative structure activity relationships (QSAR); comparative molecular field analysis; docking; molecular diversity and combinatorial libraries.

INFO 1533 Seminar in Chemical Informatics (1-3 cr.) Presentation and discussion of new topics in chemical informatics. Concentration on a particular area each semester to be announced before registration.

INFO 1553 Independent Study in Chemical Informatics (1-3 cr.) Independent study under the direction of a faculty member, culminating in a written report. May be repeated for credit.

INFO 1693 Thesis/Project in Chemical Informatics (1-6 cr.)

Health Informatics

INFO 1530 Seminar in Health Informatics Applications (3 cr.) Presents an overview of the various professional applications and research directions taken in health informatics. Requires directed laboratory experience.

INFO 1531 Seminar in Health Informatics (1-3 cr.)

INFO 1551 Independent Study in Health Informatics (1-3 cr.) Independent study under the direction of a faculty member, culminating in a written report. May be repeated for credit.

INFO 1691 Thesis/Project in Health Informatics (1-6 cr.)

Human Computer Interaction (Fall 2003)

INFO 1534 Seminar in Human Computer Interaction (1-3 cr.) Topics vary yearly and include the following: information visualization, immersive technologies, designing hypermedia for educational applications, user-centered design techniques and tools, formal methods and cognitive modeling in HCI.

INFO 1554 Independent Study in Human Computer Interaction (1-3 cr.) Independent study under the direction of a faculty member, culminating in a written report. May be repeated for credit.

INFO 1694 Thesis/Project in Human Computer Interaction (1-6 cr.)

New Media Program

The abbreviation "P" refers to the course prerequisite or prerequisites. The number of hours of credit given for a course is indicated in parentheses following the course title.

NEWM N500 Foundations of Digital Arts Production (3 cr.) Examines foundations and principles of digital media production. Topics include: publishing electronic print media, written composition, methods, textbooks, multimedia, computer transmission of imaging, sound, and video. Other aspects covered are network and broadband media transmission, television and computer graphics, background audio, script credit approval, clearances, recording, and audio and video sampling. Also included is reproduction of sound and images, tools for digital media application development. Legal and ethical aspects regarding the protection of intellectual property, copyright, name-branding, business affairs, and live performances for the commercial media industry will be assessed.

NEWM N501 TPCS: Principles of Multimedia Technology (3 cr.) Examines current practices in the use of digital media technology with special emphasis in computer technology, library science, computer science, music, journalism, and art and design. Paradigms of applied research; implementation and resource allocation; assessment designs for specific production models; assessment of database-backend; study of current applications and concepts.

NEWM N502 Digital Media Motion and Simulation Methods (3 cr.) Applications in animation/simulation design and creation using computer desktop tools. Animation models for Web design, Internet applications, composite techniques, and instructional sequences will be developed. Skills will be developed through design and modeling of individual or team multidisciplinary projects.

NEWM N503 Digital Media Application Design Processes (3 cr.) Presents the principles and fundamentals of design techniques using authoring tools on PC, Macintosh and emerging computer platforms. Included are storyboarding, planning and organization of scripts, use of current technology, computers, video and digital arts equipment; computer-assisted design and project planner software tools and management of design team concepts.

NEWM N504 Advanced Interactive Design Applications (3 cr.) P: NEWM N502. Incorporates extensive analysis and use of computer and multimedia authoring tools intended for distributed learning applications. Project management and programming team organization; media management and selection criteria for digital arts media development; task analysis and instructional sequencing applied to training and instruction; assessment modeling and feedback schedules for intrinsic motivation of students and trainees are examined.

NEWM N505 Internship in Media Arts and Technology (3 cr.) An internship program for students to work with and learn from experts in media (digital arts) technology fields who are developing and using new applications in commercial and educational settings. Requirements for interns include the development of a technology project proposal; interview, resume, and project presentation; on-site intern residency; project report; oral and media presentation of project outcomes.

NEWM N506 Media Arts and Technology Project (3 cr.) Students create and orally present a multimedia teaching/training project combining elements of digital media technology including CD-ROM, videodisc, digital audio and video, MIDI, and Internet applications. Requirements include technology project proposal development, oral presentation of proposal, research and development of project, project final report, and the presentation of project. Final project to be submitted in digital form for a permanent archive.

NEWM N510 Web-Database Concepts (3 cr.) P: NEWM N503. Addresses diverse issues arising when designing World Wide Web interfaces. Basic database concepts will be presented, but the course will focus

on discussion of interface issues specific to Web databases, technologies for linking databases to Web servers for delivery, discussion of various Web-database applications, case studies, and industry trends.

School of Informatics Administration, Faculty and Staff 2002-04

Administration

Dunn, J. Michael, *Dean, Oscar R. Ewing Professor of Philosophy, Professor of Computer Science*
Bailey, Darrell L., *Executive Associate Dean, Director of Office of New Media, Associate Professor of Music*

Perry, Douglas G., *Associate Dean for Graduate Studies and Research, Associate Professor of Respiratory Therapy, Adjunct Associate Professor of Medicine*

Faculty

Baldwin, Daniel, *Assistant Professor*

Defazio, Joseph, *Assistant Professor*

Faiola, Anthony, *Associate Professor*

Hook, Sara A., *Professor of Dental Informatics, Associate Dean of the Faculties, and Librarian*

Huang, Jeffrey, *Assistant Professor of New Media and Assistant Professor of Computer and Information Science*

Huckleberry, Donald, *Research Associate*

Koch, Clinton, *Lecturer*

Koch, Keith, *Assistant Professor*

Lipkowitz, Kenny B., *Associate Director of Chemical Informatics and Professor of Chemistry*

Mannheimer, Steve, *Professor*

McDaniel, Anna M., *Director of Health Informatics, Associate Professor of Nursing, and Adjunct Associate Professor of Public Health*

McDaniel, Matt, *Lecturer*

Milosevich, Sam A. Falk, *Associate Professor of Informatics*

Mukhopadhyay, Snehasis, *Associate Director for Bioinformatics and Associate Professor of Computer and Information Science*

Reed, Mary Ellen, *Lecturer*

Tennant, Susan, *Clinical Assistant Professor*

Staff

Hamilton, Tia, *Senior Administrative Assistant*

LeFevre, D.C., *Webmaster and Media Designer*

McCreary, W. Mark, *Assistant Dean*

O'Neill, Mary, *Senior Administrative Assistant*

Ratts, David, *Recorder*

Ray, Dale, *Administrative Assistant*

Rondeau, Molly, *Administrative Support Specialist*

INDIANA UNIVERSITY SCHOOL OF JOURNALISM



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Contents

257	The Mission of the School of Journalism
257	The Mission of the Baccalaureate Program
257	A History of the School of Journalism at Bloomington and Indianapolis
258	Campus Life at Indianapolis
258	The Journalism Library
258	Campus Media
258	Honors and Scholarships
258	Student Organizations
258	Internships and Placement
258	Admissions
258	Admission to the School of Journalism
258	Application Deadlines
259	Transfer Students
259	The Bachelor of Arts in Journalism Degree, Indianapolis and Bloomington
259	Degree Requirements
259	Credit Hour and Grade Point Requirements
260	Journalism Major Requirements
260	Transfer Credit in Journalism
260	The Certificate in Journalism
260	The Certificate in Public Relations
260	The Indianapolis Campus Degree Requirements
260	Journalism Major Requirements
260	The Second Concentration
261	Fundamental Skills
261	Distribution Requirements
262	Culture Studies
262	Approved Courses Outside the School of Journalism
262	Program Planning and Counseling Guidelines
262	The Student's Responsibility
262	Advising
262	The Certificate in Journalism
263	The Certificate in Public Relations
263	Academic Regulations
264	Academic Standing of Candidates for the Bachelor of Arts in Journalism Degree
265	Course Descriptions
267	Administrative Officers and Faculty of the School of Journalism
267	Appendix: Indianapolis Course Lists
267	Approved Advanced Composition Courses by Departments
268	Approved Distribution Courses by Departments
271	Approved Culture Studies Courses

The Mission of the School of Journalism

The mission of the School of Journalism is to explore and to help students explore the institutions, procedures, professional skills, and audiences of journalism and mass communication. Our subject is how the media mediate, and what this process of mediation means for public life in America and around the world. This mission is both an academic and a professional one; it is about learning, teaching, and doing. To this end, we are committed to scholarly research in journalism and mass communication, to liberal education in the arts and sciences, and to professional training in media work.

The Mission of the Baccalaureate Program

The mission of the baccalaureate program of the School of Journalism is to help students learn to read, think, and communicate clearly, critically, and creatively. The school is committed to liberal education in the arts and sciences as well as to professional training in the skills of journalism and mass communication. The school believes that both breadth and depth of learning must characterize the undergraduate experience. To this end, the Bachelor of Arts in Journalism degree emphasizes:

- development of basic skills in writing, critical thinking, independent learning, mathematics, foreign language, computers, and new information technologies;
- exposure to a broad range of course work in the disciplines of the liberal arts and sciences, both in the College of Arts and Sciences (COAS) and in the liberal arts courses within the School of Journalism;
- study of human cultures outside the United States and of selected minority cultures within the United States;
- training in statistical analysis and quantitative and qualitative research methods; training in the professional skills of journalism and mass communication, including reporting, writing, editing, visual communication, new communications technology, and collaborative group work;
- study of the institutions, processes, and effects of mass media in society;
- study in depth of a field or discipline in the arts and sciences, other than journalism and mass communications; and
- preparation for a lifetime of learning.

Because its mission coincides with the philosophy and goals of the Accrediting Council on Education in Journalism and Mass Communications (ACEJMC), the school seeks accreditation every six years from this national body. ACEJMC accredited the school most recently in 1996.

A History of the School of Journalism at Bloomington and Indianapolis

Indiana University, established in 1820 as a tiny seminary in Bloomington, eventually became one of the first state universities to teach journalism. Instruction began in 1893 with three students in the first class. Classes in writing and reporting were taught at intervals during the next few years, supplementing the students' liberal arts background in English, history, and economics.

A Department of Journalism was established in the College of Arts and Sciences in 1911, although students could not major in journalism until 1932. Professor Joseph Piercy was named as the first head of the department; he served until 1938. In 1911 the Department of Journalism took over administration of the *Indiana Daily Student*, the campus newspaper established in 1867 as a student-owned enterprise.

Among the prominent alumni of the Piercy years were Don Mellett, '13, killed in Canton, Ohio, while investigating crime in the city, a campaign that won a Pulitzer Prize; Ernie Pyle, '23, famed correspondent in World War II; Nelson Poynter, '24, publisher of the *St. Petersburg Times* and cofounder of *Congressional Quarterly*; and Mark Ferree, '26, who rose to top management in Scripps Howard.

John E. Stempel, an alumnus of the program and a formidable teacher of reporting and editing, served as head of the Department of Journalism from 1938 until his retirement in 1968. It was in the Stempel years that journalism, after moving through various offices on campus, found its home in Ernie Pyle Hall in 1954. Also during his leadership, the High School Journalism Institute began in 1946, directed by Professor Gretchen Kemp. Stempel graduated many distinguished journalists. Frank Bourgholtzer, '40, had a successful career at NBC News in radio and television. Robert E. Thompson, '49, became a White House correspondent, and then head of the Hearst Newspapers Washington Bureau. Gene Miller, '50, won two Pulitzer Prizes for the *Miami Herald*. Kenneth Olshan, '54, became head of Wells Rich and Greene Worldwide, one of the country's top advertising agencies. Dan Thomasson, '57, directs the Washington Bureau of Scripps Howard Newspapers. George Gill, '57, is publisher of the *Louisville Courier Journal*.

The Department of Journalism began an M.A. program in the late 1920s and a Ph.D. program in mass communication in 1966. Graduates from these programs have become leaders in journalism education. Del Brinkman, M.A. '64, Ph.D. '71, has served as dean of the University of Kansas School of Journalism and vice chancellor for academic affairs at Kansas. Brinkman is presently the Journalism Program director for the John S. and James L. Knight Foundation. Tom Bowers, B.A. '64, Ph.D. '71, became associate dean of the School of Journalism at the University of North Carolina. Both Brinkman and Bowers served as president of the Association for Education in Journalism and Mass Communication. So

also did David Weaver, B.A. '68, M.A. '69, Ph.D. '74, now the Roy W. Howard Research Professor in Indiana University's School of Journalism.

Under the leadership of Richard G. Gray, who became chairman of the Department of Journalism in 1968, the school's curriculum changed its emphasis. Since 1969 journalism majors have had to study a core curriculum that balances instruction in the skills of writing, visual communication, reporting, and editing with instruction in the history, economics, law, responsibilities, and ethics of journalism. The *Indiana Daily Student* was separated from the curriculum; it and the *Arbutus*, the campus yearbook, were established as independent publications administered by a publisher selected by the journalism faculty. To provide a modern, technological environment for research and teaching in journalism, Gray led a national fundraising campaign for the renovation of Ernie Pyle Hall, completed in 1976.

Graduates have since distinguished themselves academically and professionally. Paul Tash, '76, won a Marshall Scholarship to the University of Edinburgh and now is executive editor of the *St. Petersburg Times*. Bill Foley, '76, won a Pulitzer Prize for photography. Michel du Cille, '81, has won two for the *Miami Herald* and now is a picture editor at the *Washington Post*. Barbara Toman, '83, won a Rhodes Scholarship to Oxford University and works in the London bureau of the *Wall Street Journal*. Wendy Weyen, '85, and Jennifer Orsi, '88, won the Wells Award, the highest award for academic and leadership excellence that students can win at Indiana University, and both work for the *St. Petersburg Times*.

The school and its alumni pay tribute to the achievements of many of these outstanding graduates through undergraduate scholarships named in their honor.

In 1974 the Department of Journalism became a school with Richard Gray as director. In 1982 it became a systemwide school, responsible for the coordination of journalism education on all eight campuses of Indiana University. Gray became dean and presided over the founding of an undergraduate major at IUPUI in an independent School of Journalism. Before 1974 journalism courses had been taught at Indianapolis in the Department of English, mainly by Professor Shirley Quate, who also advised the student-run campus newspaper, *The Sagamore*, which first appeared in 1971. Acting Associate Dean Floyd Arpan established the School of Journalism in Cavanaugh Hall. As the program grew under the leadership of Associate Dean James Brown, the school moved in 1984 to offices in the Education-Social Work building. The school took over administration of *The Sagamore*, appointing its first publisher in 1985.

In 1989 the School of Journalism in Bloomington separated from the College of Arts and Sciences and became independent. Since 1990, students in the School of Journalism on both campuses have enrolled in a new degree program, the Bachelor of Arts in Journalism (B.A.J.).

Campus Life at Indianapolis

The journalism curriculum helps students prepare to be effective communicators regardless of their chosen profession. Careers in newspapers, magazines, broadcast and electronic journalism, public relations, and advertising are as vital as ever. The Bachelor of Arts in Journalism degree also prepares students for related careers and for graduate studies. For example, strong communication skills are essential for careers in law, business, and public affairs.

The urban setting of the Indianapolis campus enables students and faculty to work closely with public and private agencies, government, business, and industry. Its urban orientation enables the university to be directly involved in metropolitan concerns and aspirations. The state capitol is only a short walk from the school's offices. Internships available from Indianapolis media organizations allow students to enhance their classroom skills with work experiences in a major media market. Classroom experiences are also enriched by part-time instructors who are media professionals.

The School of Journalism operates administratively and practically as one school for the Indianapolis and Bloomington campuses. Because the degree program is unified, students who meet all admission requirements may start in Bloomington and transfer to IUPUI or vice versa. Students who have not met all admission requirements may transfer to the University Division at Bloomington or the University College at Indianapolis. The school is nationally accredited on both campuses.

The IUPUI campus emphasizes computer-based journalism. Students are taught how to use online information (LEXIS® and NEXIS®) in J100 Computer Methods for Journalism class. NEXIS, a massive database that contains full text of many newspapers, magazines, news services, and government documents, is very useful as background research on story ideas. Students are given free computer access accounts so that they may connect to the world of electronic information and, by e-mail, to their professors. Owning a computer is not necessary, but students who have their own computer in their homes or offices can turn in assignments electronically without coming to campus.

Two journalists from *The Indianapolis Star* won the Pulitzer prize for investigative journalism using computer skills learned in IUPUI journalism courses.

The Journalism Library

Books, journals, trade publications, and newspapers used by faculty and students in journalism are housed in the University Library, 755 W. Michigan Street. The IUPUI University Library is a beautifully designed building. It features computer databases that help students, faculty, and staff in their academic and professional work.

Campus Media

Students may work for *The Sagamore*, the campus newspaper administered by the School of Journalism in accordance with principles established in the Articles of Operation. The newspaper is a state-of-the-art desktop-published weekly that gives students a full range of opportunities in writing, editing, photography, ad sales, production, graphics, and page design. Students have full responsibility for the news-editorial content and may also gain management and marketing experience. Most student staff positions are paid. Students are also encouraged to explore opportunities in the communications market in print, broadcast, public relations, and advertising in Indianapolis. *The Sagamore* is often recognized as the top campus weekly in the state, having won numerous state, regional, and national awards.

Honors and Scholarships

The school recognizes and rewards the academic and professional accomplishments of its majors with a program of awards and scholarships on both campuses.

The school places its outstanding students on the Dean's List each semester, based on their grade point average for that semester. In addition, the school annually awards approximately \$130,000 in scholarships ranging in value from \$500 to \$6,500 to its majors. Indianapolis students compete with Bloomington students for these scholarships. Approximately \$5,000 is earmarked for Indianapolis students. Applicants are interviewed for these scholarships in spring semester by a faculty-student committee. The school announces the awards at an annual ceremony for students and parents in April.

Student Organizations

The Journalism Student Organization helps students prepare to enter the media market by organizing a spring job fair and sponsoring occasional workshops and guest speakers throughout the year. Students may also join the professional chapters of Society of Professional Journalists, for students interested in careers in news; Women in Communications, for women interested in careers in journalism and mass communications; or Public Relations Society of America, for students interested in careers in public relations.

Internships and Placement

The IU School of Journalism at Indianapolis has a placement director in Indianapolis to help students prepare for internships and full-time employment. Indianapolis students are also encouraged to take advantage of recruiting visits, available through the Bloomington campus. Information about these opportunities is posted regularly on the school's bulletin board outside Cavanaugh Hall 001G or through the Journalism Web site at www.journalism.iupui.edu. Job opportunities are also listed in *Deadline*, a weekly newsletter from the Bloomington campus.

The school's placement director advises students in preparing resumes, clips, cover letters, and interviews, as well as arranging for recruiters and employers to visit the IUPUI campus. For more information, contact Patrick McKeand, Education/Social Work Building 4104, (317) 274-5934.

Students may earn up to 3 credit hours in journalism for properly supervised internships, as long as they arrange to meet the school's requirements in advance of taking the internship. Students may not apply the credit to the minimum of 30 credit hours required for the journalism major.

Admissions

Admission to the School of Journalism

Students wishing to major in journalism may declare themselves journalism majors in the University Division at Bloomington or the University College at Indianapolis during their first year at IU and may take J110 Foundations of Journalism and Mass Communication. At the Indianapolis campus, students may also take J100 Computer Methods in Journalism during their first year. Before seeking admission as a major in the School of Journalism, students must complete a minimum of 26 credit hours of undergraduate course work, including the following:

- J110 Foundations of Journalism and Mass Communication with a grade of C– or better
- English Composition with a grade of C– or better or exemption
- One semester of a foreign language
- One fundamental skills mathematics course or exemption. Recommended: Math M118, A118 or D116-D117.

Students wishing to become journalism majors are expected to have computer literacy, but there is no course or competency exam required for admission. Those who cannot demonstrate competency with word processing may be required to take a jump-start course before advancing in JOUR J200 or J210.

Students meeting these requirements with a cumulative grade point average of 2.20 (FX will be calculated as F) will be considered for admission to the School of Journalism. Each year the school will admit students, based on their grade point average, as the school's physical space, instructional equipment, and faculty/staff resources permit.

At Bloomington, applicants will be permitted to register conditionally for the next required core course if they submit a completed application. Conditional registrations in journalism courses may be canceled if those applicants are denied admission to the School of Journalism.

Application Deadlines

The School of Journalism will consider applications three times a year: May 15, August 20, and December 15. Application forms are available in Ernie Pyle 200 at Bloomington and in the Education–Social Work Building 4104 at Indianapolis.

All summer transfer course work must be entered on the student's transcript prior to the first day of classes in fall semester. For admission to the Bloomington campus, transcripts from other colleges and universities should be sent to the Office of Admissions, 300 N. Jordan Avenue, Bloomington, IN 47405. For admission to the Indianapolis campus, transcripts from other colleges and universities should be sent to the Office of Admissions, Cavanaugh Hall 129, Indianapolis, IN 46202-5143.

Transfer Students

Transfers from other Colleges and Universities

Students who wish to transfer to IUPUI should contact the Office of Admissions, Cavanaugh Hall 129, Indianapolis, IN 46202-5143, (317) 274-4591. Students who wish to transfer to Bloomington should contact the Office of Admissions, 300 N. Jordan Avenue, Bloomington, IN 47405, (812) 855-0661.

Transfer students are first admitted to the University Division at Bloomington. They may then apply to the School of Journalism when they have completed the application requirements. Because transfer courses are not calculated in the cumulative grade point average for Indiana University students, transfer students must complete a minimum of one semester at Indiana University before they can be considered for admission to the school.

Acceptance of credit from other institutions will be determined by the Office of Admissions, and the applicability of credit toward degree requirements in the School of Journalism will be determined by the dean. No more than 12 transfer credit hours of mass communications courses may be counted in the journalism major. Only credits earned at Indiana University will count toward a student's grade point average. Courses from other colleges and universities transfer as credit only.

Transfers within the School of Journalism on the Bloomington and Indianapolis Campuses

Students admitted to the school on the Bloomington campus who are transferring to the school on the Indianapolis campus should complete an Inter-Campus Transfer form available on the Web at www.iupui.edu/~moveiu. Students admitted to the school on the Indianapolis campus who are transferring to the school on the Bloomington campus must have completed all admission requirements as defined by the Bloomington campus and complete the same Web form. See "Admission to the School of Journalism" in this bulletin. Students who have not met all admission requirements may transfer to the University Division. Inter-campus transfer applications will be accepted throughout the year. However, students may take advantage of Continuing Student Registration by filing for an inter-campus transfer by March 1 for summer and fall semesters, and October 1 for spring semester.

Transfers from other Indiana University Campuses

Students who have completed the admission requirements should submit an application to the School of Journalism by the published deadlines. Students who have not completed the admission requirements should complete the Inter-Campus Transfer form at the Web site www.iupui.edu/~moveiu

for admission to the University Division at Bloomington or the University College at Indianapolis.

Transfers from the School of Journalism to other Indiana University Campuses

Students enrolled in the School of Journalism who wish to attend another Indiana University campus should complete the Inter-Campus Transfer form on the Web at www.iupui.edu/~moveiu.

The Bachelor of Arts in Journalism Degree, Indianapolis and Bloomington

Academic counseling for each student in the School of Journalism is provided by a faculty member or an academic advisor prior to each semester's enrollment. Although academic counseling is intended to provide effective guidance, **students are responsible for planning their own programs and for meeting the following degree requirements for graduation.** Students are advised to read IU bulletin descriptions of all courses selected, paying careful attention to conditions concerning awarding of credit.

The Indiana University Course Analysis and Record Evaluation (IUCARE), a computerized degree-audit system, is available to all students. Students may use IUCARE to monitor their completed and remaining requirements for the Bachelor of Arts in Journalism (B.A.J.) degree. See an academic advisor for details.

Degree Requirements

The School of Journalism offers the B.A.J. degree on the Bloomington and Indianapolis campuses. Students on either campus must complete the following for the B.A.J. degree:

Journalism major (30 credit hours)

Second concentration (24 credit hours)

Fundamental skills

Writing, two courses

Mathematics, one college-level course

Foreign language, two years of one language at the college level or equivalent

Statistics, one course

Library research skills, one course

Distribution

United States history, one course

American political science, one course

Economics, one course

Literature or fine arts history/appreciation, one course

Arts and Humanities, two courses

Social and Historical Studies, two courses

Natural and Mathematical Sciences, four courses total, two from one department

Culture Studies, three courses

123 credit hours total

Journalism courses from either campus will satisfy requirements for the journalism major. Courses used to satisfy all other degree requirements will be determined by each campus. For the most part, the school will defer to the College of Arts and Sciences for the B.A.J. at Bloomington and the Schools of Liberal Arts and Science for the B.A.J. at Indianapolis to define which courses are acceptable.

Students who intend to receive their degree from the Bloomington campus must satisfy all nonmajor requirements with courses as defined by the College of Arts and Sciences. Students who intend to receive their degree from the Indianapolis campus must satisfy all nonmajor requirements with courses as defined by the Schools of Liberal Arts and Science. Students who plan to transfer permanently to either the Indianapolis or Bloomington campus and receive the degree from that campus should consult with an academic advisor concerning course equivalencies. The school maintains a list of Bloomington and Indianapolis courses that will satisfy nonmajor requirements on both campuses.

Credit Hour and Grade Point Requirements

- 123 credit hours required for graduation, including the following minimums:
 - At least 30 but no more than 36 credit hours of mass communications courses (journalism, telecommunications, and selected communication and culture)
 - At least 65 credit hours from the College of Arts and Sciences or School of Liberal Arts and School of Science at Indianapolis, excluding Linguistics L100, all telecommunications courses, and selected communication and culture courses
 - At least 98 credit hours combined from journalism and the College of Arts and Sciences or School of Liberal Arts and School of Science at Indianapolis
 - At least 24 credit hours in a second concentration selected from one academic discipline outside of journalism, telecommunications, and selected communication and culture courses
 - At least 36 credit hours at the 300 and 400 level
 - At least 10 credit hours of journalism from the Bloomington or Indianapolis campuses
 - At least 26 credit hours of course work during the senior year from the Bloomington or Indianapolis campuses
- Credit hour limits
 - No more than 36 credit hours of mass communication courses (journalism, telecommunications, and selected communication and culture). The limit may be increased to 39 credit hours if the credit hours include at least one course from JOUR J414, J438, J450, J470, or J475
 - No more than 12 transfer credit hours of mass communications (journalism, telecommunications, and selected communication and culture)
 - No more than 3 credit hours total of internship credit, either from JOUR J492 or any other academic unit

- d. No more than 60 transfer credit hours from a community college
 - e. Optional electives—10 or fewer credit hours outside the School of Journalism and the College of Arts and Sciences or School of Liberal Arts and School of Science at Indianapolis
 - f. Optional electives—15 or fewer credit hours of approved courses outside the School of Journalism and the College of Arts and Sciences or the School of Liberal Arts and the School of Science at Indianapolis
 - g. For students satisfying the requirements for a secondary teaching certificate, no more than 29 credit hours of approved education courses
3. Grade Point Average
 - a. A minimum 2.0 cumulative grade point average in all course work
 - b. A minimum 2.0 grade point average in all major course work (journalism, telecommunications, and selected communication and culture), C– or better in each course
 - c. A minimum 2.0 grade point average in all course work for the second concentration, C– or better in each course
 - d. A grade of FX will be calculated as an F

Journalism Major Requirements

Students must complete a minimum of 30 credit hours of journalism courses with a grade of C– or better in each course from the following categories:

At Indianapolis, students are required to take J100 Computer Methods in Journalism in addition to the following required journalism courses:

1. Core courses, 18 credit hours:
 - J110 Foundations of Journalism and Mass Communication
 - J200 Reporting, Writing and Editing I
 - J201 Reporting, Writing and Editing II
 - J210 Visual Communication
 - J300 Communications Law
 - J410 The Media as Social Institutions
2. One course from the approved list of advanced skills courses, 3 credit hours:
 - J315 Feature Writing
 - J335 Retail and Direct Advertising
 - J341 Newspaper Reporting
 - J342 Magazine Reporting
 - J343 Broadcast News
 - J344 Photojournalism Reporting
 - J351 Newspaper Editing
 - J352 Magazine Editing
 - J354 Photojournalism Editing
 - J420 Advertising as Communication
 - J429 Public Relations Campaigns
 - J455 News Analysis and Opinion Writing
 - J463 Computerized Publication Design I
3. One course from the approved list of research courses, 3 credit hours:
 - J409 Media Management
 - J414 International News-Gathering Systems

- J423 Public Opinion
- J428 Public Relations Management
- J438 Problems in Advertising
- J450 History of Journalism
- J470 Broadcast Media Analysis

4. Journalism electives, 6 credit hours:

Courses may be selected from any other journalism courses open to undergraduates except JOUR 'C' courses and JOUR J492. Students may include other advanced skills and research courses in addition to the courses taken to satisfy the advanced skills and research course requirements above.

Students have the option of taking additional mass communications courses (journalism, telecommunications, and selected communication and culture), but no more than 36 credit hours total of mass communications courses may be counted in the total 123 credit hours required for the degree. The limit of 36 credit hours of mass communications courses may be increased to 39 credit hours if one of the courses includes J414, J438, J450, J470, or J475.

The grade point average of all journalism, telecommunications, and selected communication and culture courses must be at least a 2.0.

Transfer Credit in Journalism

In order to comply with accreditation standards set by the Accrediting Council on Education in Journalism and Mass Communications (ACEJMC), no more than 12 credit hours of communications courses from any other journalism program will be accepted for credit toward the 123 credit hours required for graduation.

All transfer communications courses must be evaluated by the associate dean in order to be accepted in fulfillment of requirements for the journalism major.

The Certificate in Journalism

The Certificate in Journalism is offered on both the Bloomington and Indianapolis campuses. See “The Certificate in Journalism” later in this section for details.

The Certificate in Public Relations

The Certificate in Public Relations is offered on the Indianapolis campus. See “The Certificate in Public Relations” later in this section for details.

The Indianapolis Campus Degree Requirements

See “Credit Hour and Grade Point Requirements”

Journalism Major Requirements

See “Journalism Major Requirements”

The Second Concentration

Students must complete a second concentration of at least 24 hours in an academic discipline outside of journalism and telecommunications. Students must earn a C– or better in each course and a grade point average of at least 2.0 in all courses taken for the second concentration. The selection of courses by the student should indicate evidence of a goal and must be approved by an academic advisor or faculty counselor. No more than 12 credit hours may be taken in professional skills courses outside the School of Liberal Arts and the School of Science.

Students may complete any of the certificates offered by the School of Liberal Arts for the second concentration requirement. Students completing certificates in other schools must obtain approval from an advisor for that school. Students must complete a minimum of 24 credit hours of courses approved for the certificate. The School of Journalism requires that students pursuing this option meet with an advisor of the department offering the certificate, obtain the advisor's signature on a planned program, and submit a copy of the program to the School of Journalism advisors.

With the approval of the dean of the School of Journalism, students have the option to complete a split-second concentration, incorporating two or more departments. Students must propose selected courses in consultation with their faculty counselor and complete a written explanation of the educational value or goal of their choice. The selection of courses should show evidence of a coherent body of knowledge. The faculty counselor must sign the application and submit it to the dean for final approval.

The Second Concentration in Business Foundations

Required courses:

Economics

- E201 Introduction to Microeconomics (S&H)
- E202 Introduction to Macroeconomics (S&H)

Business Foundations Core

- X100 Business Administration: Introduction
- F260 Personal Finance
- A200 Foundations of Accounting (May substitute A201 Introduction to Financial Accounting or A202 Introduction to Managerial Accounting)

Choice of courses from the following list to total 24 credit hours with the previous required courses:

- L203 Commercial Law I
- K201 The Computer in Business
- X204 Business Communications
- M300 Introduction to Marketing
- N300 Principles of Risk and Insurance
- R300 Principles of Real Estate

G300 Introduction to Managerial Economics
 D301 The International Business Environment
 L408 Real Estate Law

Students interested in earning a minor in business should consult with their advisor.

Following are additional conditions for the second concentration in specific areas:

Education—Secondary Teacher Certification

Courses are limited to those required for teacher certification. Students should be aware of limits on elective hours. The School of Journalism cooperates with the School of Education in preparing students to teach journalism in high school. Interested students should contact Deborah Perkins, Education/Social Work Building 4104, (317) 274-2776, e-mail: dperkins@iupui.edu

Fine Arts (Herron)

Twelve credit hours of art history or appreciation are required.

The Second Concentration in French

F203 Second-Year French I
 F204 Second-Year French II
 F300 Lectures et analyses littéraires
 F328 Advanced French Grammar and Composition
 F360 Introduction socio-culturelle à la France
 F495 Individual Readings in French
 Two elective courses from 300 or 400 levels

General Science

Selection of courses and departments must show evidence of guided study in one subject. Premedical and pre dental course work is allowed, as designated.

Languages

No 100-level courses are allowed.

Music

At least 14 credit hours of E, M, or Z courses are required. Applied music courses must be in private instruction in one instrument. No ensemble work may apply. Students should be aware of limits on elective hours.

Public and Environmental Affairs

Students must complete the official minor offered by SPEA and additional courses to total 24 credit hours. Students should be aware of limits on elective hours. No more than 12 credit hours of the following courses may apply:

E325	V346
E326	V348
E475	V372
H352	V442
H460	V449
K300	V461

Fundamental Skills

Students may test out of all but 3 credit hours of the fundamental skills requirement. Requirements completed in one area may, under certain conditions, also fulfill requirements in other areas.

Cross-listing policy: Courses used for English composition and 100-level fundamental skills foreign language may not be used to fulfill any other

requirement. Only math courses listed as both fundamental skills and natural and mathematical science may cross-list. One-hundred-level foreign language courses from departments that allow 100-level courses to fulfill major requirements may be applied to other appropriate requirements.

Writing (2 courses)

English Composition

Students may fulfill this requirement in any one of the following ways:

1. Exemption without credit. One of the following scores required: SAT Verbal 670 or above; ACT English 32 or above; or Advanced Placement English 4 or 5.
2. Exemption with credit. Scores required: English Composition Achievement Test 600 or above and one of the following: SAT Verbal 670 or above; ACT English 32 or above; or Advanced English Placement 4 or 5. Students must also apply for exemption with credit to the Department of English, Cavanaugh Hall Room 501, Indianapolis, IN 46202.
3. Completion of English W131 or English W140 with a grade of C– or better.

Advanced Composition

Students must complete, with a grade of C– or better, one advanced composition or intensive writing course at the 200 level or above after completing the English composition requirement. Courses that fulfill this requirement are listed in the appendix section “Indianapolis Course Lists—Approved Advanced Composition Courses by Departments” in this bulletin.

Mathematics (one course)

Students may satisfy this requirement in one of three ways:

1. Complete one course from mathematics M118*, M119, 151, 153, 163, or 221 with a grade of C– or better. Credit for these courses may count toward the 123 credit hours required for the degree.
2. Students with a mathematics SAT score of 650 or higher or a mathematics ACT score of 29 or higher are exempt from this requirement.

NOTE: Students who plan to transfer to Bloomington should take M118, M119, 163, or 221.

Foreign Language

Students must complete the study of a single foreign language through the second semester of the second year of college-level course work. All or part of this requirement may be fulfilled by performance on placement examinations. Students may fulfill the entire foreign language requirement by placing into the third-year level.

Students who have studied foreign language in high school should take the foreign language placement examination. Contact the Foreign Language Department for more information.

International Students

Students whose native language is not English may demonstrate required proficiency in their native language. They may not, however, earn credit for any course at the first- or second-year level in their native language.

Statistics

One course selected from: ECON 270, PSY B305, SOC R359, STAT 301, SPEA K300.

Distribution Requirements (12 courses)

Approved courses that will fulfill Arts and Humanities, Social and Historical Studies, and Natural and Mathematical Sciences are listed in the appendix section “Indianapolis Course Lists—Approved Distribution Courses by Departments” in this bulletin. Note: Students are advised to read carefully course descriptions in School of Liberal Arts and School of Science bulletins for prerequisites and conditions concerning awarding of credit. Distribution courses may be cross-listed to Culture Studies and Second Concentrations when they are included on these requirements’ approved lists.

To ensure a rich and varied general education, the School of Journalism requires students to complete the distribution requirements as follows:

U.S. History (one course)

Students may select from History H105, H106, A221, A301, A302, A303, A304, A347, or any history course listed within “United States History” course descriptions in the School of Liberal Arts Bulletin.

Political Science (one course)

Students may select from Political Science Y103, Y301, Y302, Y304, Y305, Y306, Y307, Y308, Y311, Y313, Y319, Y324, Y394, and approved topics for Y200.

Economics (one course)

Students may select from approved distribution courses in the School of Liberal Arts economics department. See the appendix section “Indianapolis Course Lists—Approved Distribution Courses by Departments” in this bulletin.

Literature or Fine Arts History or Appreciation (one course)

Literature courses must be devoted entirely to print literature. Fine arts (Herron) courses must be selected from courses with an “H” preceding the course number. Courses must be approved distribution courses in the School of Liberal Arts. See the Appendix section “Indianapolis Course Lists—Approved Distribution Courses by Departments” in this bulletin.

Arts and Humanities (two courses)

See the appendix section “Indianapolis Course Lists—Approved Distribution Courses by Departments” in this bulletin.

Social and Historical Studies (two courses)

See the appendix section “Indianapolis Course Lists—Approved Distribution Courses by Departments” in this bulletin.

*Math M118 is recommended for students who want to prepare for the required statistics course.

Natural and Mathematical Sciences (four courses)

See the appendix section "Indianapolis Course Lists—Approved Distribution Courses by Departments" in this bulletin. At least two courses must come from the same department. Students are advised to read all course descriptions in the School of Liberal Arts and School of Science bulletins regarding awarding of credit.

Culture Studies

Students must observe the following guidelines in fulfilling the culture studies requirement:

1. Students are required to complete three approved courses for the culture studies requirement.
2. Students must complete one of the three courses from list A.
3. Students must take another course, either from list A or from list B.
4. Students must complete a **third** course from list C. See the appendix section "Indianapolis Course Lists—Approved Culture Studies Courses by Departments" in this bulletin.
5. Students who successfully complete an academic year abroad in a program sponsored by the Indiana University Office of Overseas Study will partially satisfy the culture studies requirement of one course from List A and a second course from List A or B through the course work they will take on the year-long program. Students participating in academic year-long programs sponsored by other universities may petition for a similar exception, providing materials from courses taken and evidence of the general cultural emphasis of the program.

Approved Courses Outside the School of Journalism

Students must complete a minimum of 98 credit hours offered by the School of Liberal Arts and the School of Science and the School of Journalism. School of Music courses in history, literature, composition, appreciation, and theory of music may be counted among the 98 credit hours.

Students may select the remaining 25 credit hours in the School of Liberal Arts and the School of Science, or from the list of approved courses below. Students also have the option of including in these 25 credit hours up to 15 credit hours from the list of approved courses below and 10 credit hours of courses from any other degree-granting units of the university. The school will not accept engineering, technology, restaurant and hotel management, or self-acquired competency credit.

Students satisfying requirements for a teaching certificate may take a maximum of 29 credit hours outside the School of Journalism, the School of Liberal Arts, or the School of Science in Indianapolis, if the courses selected are from the School of Education section in the list below.

Kelley School of Business

Business G330 Principles of Urban Economics may be counted among the 65 credit hours within the College of Arts and Sciences.

- A200 Foundations of Accounting (Nonmajors) or A201-A202 Introduction to Accounting I-II
- F301 Financial Management
- G406 Business Enterprise and Public Policy
- G460 Business in Its Historical and Social Settings
- J401 Administrative Policy
- K201 The Computer in Business
- L201 Legal Environment of Business or L203 Commercial Law I
- L405 The Corporation in America Today
- M300 Introduction to Marketing or M301 Introduction to Marketing Management
- M411 Transportation Carrier Management
- P301 Operations Management
- Z300 Organizational Behavior and Leadership or Z302 Managing and Behavior in Organizations

School of Education

- M201 Laboratory Field Experience
- M300 Teaching in a Pluralistic Society
- M314 General Methods in Senior High/Junior High/Middle School Education
- M457 Methods of Teaching Senior High/Junior High/Middle School Subjects (one course to be taken in each major area)
- M480 Student Teaching
- P254 Educational Psychology for Teachers at All Grades
- P255 Educational Psychology for Senior High/Junior High/Middle School Teachers

School of Physical Education

- D332 Dance and the Allied Arts II
- P397 Kinesiology

School of Library and Information Science

- L504 Information Sources and Services
- L508 Principles of Library Collection Building
- L510 Organization of Materials and Information I
- L533 Library Materials for Children and Young Adults
- L553 School Library Media Center
- L596 Library Practice Work

School of Public and Environmental Affairs

- E200 Environment and People
- E300 Introduction to Environmental Sciences
- E400 Topics in Environmental Studies
- H316 Introduction to Environmental Health Management Orientation
- V170 Introduction to Public Affairs
- V264 Urban Structure and Policy
- V366 Managing Human Resources
- V376 Law and Public Policy Issues in America I
- V447 Federal Budget Policy
- V450 Contemporary Issues in Public Affairs

Military Science

- G301 Basic Leadership Training
- G302 Advanced Military Subjects
- G401 Advanced Leadership Theory
- G402 Officer Preparation and Development

Program Planning and Counseling Guidelines

The Student's Responsibility

Students are responsible for planning their programs and meeting all graduation requirements. Students should be thoroughly familiar with all sections in this bulletin regarding admission, degree requirements, major requirements, course requirements, academic regulations, and academic standing. Students are also responsible for policy information and meeting all deadlines as published in the *Schedule of Classes* and for keeping their local and permanent addresses up to date with the Office of the Registrar. Faculty advisors, academic counselors, and the recorder can assist students in planning their programs and explain requirements and policies. Students also have access to the computerized degree-audit system in the advising section of insite.indiana.edu.

Advising

The School of Journalism assigns each journalism major a faculty advisor. Students are encouraged to meet with their faculty advisor as necessary to discuss academic and career planning. In addition, professional staff are available every day for advising.

Indianapolis

Deborah Perkins, Assistant to the Dean, Education-Social Work 4103, (317) 274-2776, e-mail: dperkins@iupui.edu

Journalism majors are required to meet with their faculty advisor prior to each registration. For this purpose, the school administers an advising process each semester. During this advising period, journalism majors may preregister in journalism courses for the next semester.

Advising for registration in fall courses usually occurs in March and for registration in spring courses in October. In these advising conferences students should, as a minimum objective, make certain that they understand the requirements for successful completion of the area requirements and that they have made an appropriate plan for the coming semester.

Access to Journalism Courses at Indianapolis

All journalism courses are open to nonmajors. Nonmajors should have completed appropriate prerequisites for advanced courses or have obtained permission from the instructor.

The Certificate in Journalism

Students in good academic standing at Indiana University who are not majoring in journalism,

telecommunications, sports communication program—broadcast emphasis, or any other major or program that requires a substantial number of mass communications courses are eligible to apply to the certificate program. Students must file an application with the School of Journalism.

To be considered for admission, students must have completed 26 credit hours with a minimum 2.2 cumulative grade point average (FX will be calculated as F), including:

- J110 Foundations of Journalism and Mass Communication with a grade of C– or better
- English Composition with a grade of C– or better or exemption
- One semester of a foreign language
- One fundamental skills mathematics course or exemption.

Students wishing to be admitted to the certificate program are expected to have computer literacy, but there is no course or competency exam required for admission. Those who cannot demonstrate competency with word processing may be required to take a jump-start course before advancing in JOUR J200 or J210.

Required courses

1. Core courses, 21 credit hours:
 - J100 Computer Methods for Journalism
 - J110 Foundations of Journalism and Mass Communication
 - J200 Reporting, Writing and Editing I
 - J201 Reporting, Writing and Editing II
 - J210 Visual Communication
 - J300 Communications Law
 - J410 The Media as Social Institutions
2. One course from the approved list of advanced skills courses, 3 credit hours:
 - J315 Feature Writing
 - J335 Retail and Direct Advertising
 - J341 Newspaper Reporting
 - J342 Magazine Reporting
 - J343 Broadcast News
 - J344 Photojournalism Reporting
 - J351 Newspaper Editing
 - J352 Magazine Editing
 - J354 Photojournalism Editing
 - J420 Advertising as Communication
 - J429 Public Relations Campaigns
 - J455 News Analysis and Opinion Writing
 - J463 Computerized Publication Design I
3. One 3 credit hour elective, selected from journalism, or a College of Arts and Sciences (Bloomington), School of Liberal Arts, or School of Science (Indianapolis) advanced composition or statistics course.

The Certificate in Public Relations

Indianapolis Campus

The Certificate in Public Relations serves students not majoring in journalism by providing a coherent program of study. This certificate also provides the student's current or prospective employer with tangible evidence of a student's training in public relations. The certificate program is of interest to students in a wide variety of fields.

The Certificate in Public Relations is also beneficial to working professionals who are either currently in the public relations field or are considering a career change to public relations and desire formal credentials.

Students in good academic standing at Indiana University's Indianapolis campus, who are not majoring in journalism or telecommunications, are eligible to apply to the certificate program. Students must file an application with the School of Journalism.

To be considered for admission, students must have completed 26 credit hours with a minimum 2.2 cumulative grade point average (FX will be calculated as F), including:

- J110 Foundations of Journalism and Mass Communication (with a grade of C– or better)
- English Composition (with a grade of C– or better or exemption)
- One fundamental skills mathematics course or exemption (M118 recommended)

Required courses for the certificate include:

- J100 Computer Methods for Journalism
- J110 Foundations of Journalism and Mass Communication
- J200 Reporting, Writing and Editing I
- J201 Reporting, Writing and Editing II
- J210 Visual Communication
- J219 Introduction to Public Relations
- J300 Communications Law
- J410 Media as Social Institutions

In addition, *two* of the following three courses must be taken:

- J428 Public Relations Management
- J429 Public Relations Campaigns
- J460 Research Skills in Public Relations

Academic Regulations

Absences from Final Examinations

Students are required to adhere to the policies regarding final examinations as published in the *Schedule of Classes*.

Absences from Scheduled Classes

Illness is usually the only acceptable excuse for absence from class. Other absences must be explained to the satisfaction of the instructor, who will decide whether omitted work may be made up.

Addition of Courses

No course may be added by an undergraduate student after the first week of a semester or a summer session unless the instructor of the course approves and the request is approved by both the chairperson of the department in which the course is offered and the dean.

Change of Grade

Requests for a change of grade must be made no later than the last day of classes of the next regular semester.

Confidentiality of Records

Indiana University, in compliance with the General Education Provisions Act, Section 438, titled Family Educational Rights and Privacy Act, and the university's Policy on Access to Institutional Data, provides that all student records are confidential and available only to eligible employees of the university for use in the conduct of university business (as determined by data stewards), the student, and the parents, if the student is under 21 and dependent as defined by IRS standards. Students may review their records upon request and may ask for deletions or corrections of the record in a hearing process described in detail in the *Code of Student Rights, Responsibilities, and Conduct*, distributed at fall registration or available in Bloomington at the Office of Student Ethics, Assistant Dean of Students Annex, or the School of Journalism office, Education–Social Work 4104 in Indianapolis.

References, recommendations, and other similar documents may carry a voluntary waiver relinquishing the student's right to review this specific material. The student may also release the record to others by signing a written release available in the offices that maintain records. Further details regarding the provisions of the Privacy Act and a list of offices where student records are kept may be found in the *Code of Student Rights, Responsibilities, and Conduct*.

Correspondence Courses

With the approval of an academic advisor, students may take a limit of two Independent Study university courses offered through the School of Continuing Studies for the B.A.J. degree.

Credit by Examination

The school will apply credit earned by departmental examination, College Board Achievement Placement Tests, College Board Advanced Placement Tests, and language placement tests offered by the Bureau of Evaluative Standards and Testing toward appropriate degree requirements. Such credit must be entered on the student's transcript. At Indianapolis, students wishing special language credits through the credentialing process must file an application for special credit and pay a fee or charge per credit for additional credits. Indianapolis students should contact the Foreign Language Office, (317) 274-2817, for complete information.

Degree Applications

Candidates for the B.A.J. must file an application for a degree in the school recorder's office, Ernie Pyle Hall 200B at Bloomington or Education–Social Work 4104 at Indianapolis. Deadlines to apply: June 1 for May graduation; December 1 for June or August graduation; February 1 for December graduation.

Candidates must have all credits on record at least six weeks prior to the conferring of degrees, except for credits of the current semester.

Dual Bachelor's Degree

In certain cases the dean may permit undergraduate students who have not yet completed a first bachelor's degree to complete a second bachelor's degree. Such students must complete all requirements for the B.A.J. and the second degree. Students with a bachelor's

degree should consider applying for admission to a graduate program.

Exceptions to Degree Requirements

Requests for deviation from school requirements may be granted only by written approval from the dean of the school (or the dean's administrative representative).

Incomplete Courses

A grade of Incomplete (I) may be given only when the work of the course is substantially completed and when the student's work is of passing quality. All incomplete (I) grades must be removed within the time specified by the instructor of the course or they will automatically change to an F one calendar year after the end of the semester/session the grade of I was given. It is the student's responsibility to obtain from the instructor the requirements and deadline for the removal of the incomplete. Students who receive a grade of I should not register for the course a second time.

Language Placement for International Students

Students whose native language is not English may demonstrate required proficiency in their language. Students are required to take a proficiency exam from the department of their native language. Students must place at or above the fifth semester. They cannot earn credit for courses at the first- or second-year level in their native language.

Pass/Fail Option

Students in good academic standing may take up to eight elective courses, maximum two courses per academic year, for a grade of P (pass) or F (fail). No courses used to fulfill major requirements, second concentration, fundamental skills, distribution, or culture studies requirements may be taken under the Pass/Fail option.

During the freshman year, students may take two HPER "E" classes under the Pass/Fail option in addition to the two other courses permitted.

Students must meet the deadlines to enroll in courses under the Pass/Fail option as listed each semester in the *Schedule of Classes*. A grade of P is not calculated in the grade point average; a grade of F is calculated in the grade point average. A grade of P cannot be changed subsequently to any other letter grade.

Public Information

Upon request, certain information is made available to the public by the Office of the Registrar: Bloomington, Franklin 100, tel. (812) 855-0121; Indianapolis, Cavanaugh Hall 133, (317) 274-1501.

Release of Information in Student Records

An implicit and justifiable assumption of trust is placed in the School of Journalism as custodian of personal data submitted by students entering the school or generated during their enrollment. This mutual relationship of trust between the school and the individual student requires that such data be held in confidence. More information on the confidentiality

and access to student records appears in the front portion of the bulletin.

Statute of Limitations

BLOOMINGTON

Course work for the B.A.J. degree must be completed within eight years from the time the student first registers in the university. Students who do not meet this requirement must apply in writing to the dean to have their programs updated to meet the degree requirements currently in effect.

INDIANAPOLIS

Permission must be obtained from the office of the associate dean to use any course that was completed 10 or more years previously as credit toward the B.A.J. degree.

Withdrawal from Courses

The school permits withdrawal from courses with the automatic grade of Withdrawn (W) within the deadlines of the current campus as published in the *Schedule of Classes*.

Petitions for withdrawal after the periods specified in the *Schedule of Classes* will be considered by the dean only for urgent reasons related to extended illness or equivalent distress. Documentation of extended illness or equivalent distress will be required.

If students withdraw with the dean's consent, their mark in the course shall be W if they are passing at the time of withdrawal and F if they are not passing. The grade will be recorded on the date of withdrawal. Failure to complete a course without authorized withdrawal will result in the grade F.

Academic Standing of Candidates for the Bachelor of Arts in Journalism Degree

Degrees Awarded with Distinction

The school recognizes outstanding performance in course work by awarding the Bachelor of Arts in Journalism degree with three levels of distinction: Distinction, High Distinction, and Highest Distinction depending upon the student's cumulative grade point average. Students must have a minimum of 60 graded credit hours at Indiana University to be considered for distinction degrees. No more than 10 percent of the graduating class may receive distinction.

FX Policy

The School of Journalism will calculate FX grades as F's for internal purposes and degree requirements. This calculation will apply to all categories of academic standing: good, probation and dismissal, class rank, and all grade point average requirements in the degree, including cumulative, semester, major, and second concentration.

A student may use the FX option for purposes of the university transcript. An undergraduate student who has repeated a course previously failed may request to have only the last grade in that course counted in the

student's grade point average as entered on the student's transcript. A student may exercise this FX option for no more than three courses, totaling no more than 10 credit hours. A student may use the FX option on the transcript only once for a given course. Requests for approval of FX courses should be made to the school's recorder.

Good Standing

Students are considered to be candidates in good standing for an Indiana University bachelor's degree when they have been regularly admitted by the Office of Admissions; when their academic grade point average is not less than a 2.0 (C) for the last semester's work; and when their cumulative grade point average is at least 2.0 (C).

Students' eligibility to continue as journalism majors is subject to a periodic review of their progress toward a degree.

Academic Probation

Students are on academic probation when any one or more of the following conditions occur:

1. Students are on academic probation when their cumulative grade point average is below 2.0 (C).
2. Students are on academic probation for the duration of the regular semester following one in which they failed to attain a 2.0 (C) grade point average.
3. Students are on academic probation when they receive a D+ or less in any one journalism, telecommunications, or selected communication and culture course.

Students on academic probation must comply with such restrictions as the Office of the Dean of Students or the Dean of the School of Journalism may deem necessary.

Dismissal

Students are dismissed from the school when, in the judgment of the dean, they have ceased to make progress toward their degree. When students have failed to attain a 2.0 (C) grade point average in any two semesters and when their cumulative grade point average is below 2.0 (C); or they have received a D+ or less in two or more journalism, telecommunications, or selected communication and culture courses, they are automatically considered to be making insufficient progress toward their degree.

Students whose record reveals failing or near-failing performance or lack of clear progress in any semester, regardless of their previous cumulative grade point average, or whose cumulative grade point average falls below 2.0 (C) are always carefully evaluated with a possibility of dismissal.

Re-admission

The dean considers petitions for re-admission from students who have been dismissed. A student dismissed for the first time may petition for re-admission to any division of the university.

Students dismissed for the first time may petition to the School of Journalism for re-admission within the deadlines stated in the dismissal letter. Students dismissed for the second time may not be admitted for the next regular semester but are eligible to submit a

petition for re-admission after a period of at least one regular semester.

To ensure that petitions for re-admission after a second dismissal are considered by the dean, students eligible to submit them must do so before August 1 for fall semester, December 1 for spring semester, and April 15 for summer sessions.

Academic Dishonesty

Indiana University and the School of Journalism expect that students will follow the fundamental principles of academic and professional integrity in the pursuit of learning and of professional practice. Academic and professional integrity requires that students take credit for their own work and ideas only. Violation of these principles is considered an act of academic dishonesty.

Academic dishonesty is defined in *Code of Student Rights, Responsibilities, and Conduct*, the student handbook given to all Indiana University students. The School of Journalism strictly follows the handbook's guidelines and the Policy on Academic Dishonesty printed each semester in the Bloomington *Schedule of Classes*.

Course Descriptions

Graduate Courses

The following graduate-level courses are open to seniors and count for undergraduate credit toward the major:

- J501 Public Affairs Reporting
- J520 Seminar: Visual Communication
- J551 Seminar: Reporting the Law
- J552 Seminar: Reporting the Arts
- J553 Education and Media
- J554 Seminar: Science Writing
- J556 Seminar: Urban Affairs Reporting

Undergraduate Courses

C190 Perspectives on Communication (1 cr.)

Students are introduced to college learning within a journalism and mass communications environment. Classroom instruction, library activities, and projects are designed to introduce technology and information resources, develop teamwork, and sharpen analytical and evaluative skills. Topics include career planning, study techniques, time management, data collection, and presentations.

C201 Topics in Journalism (3 cr.) Topical course dealing with changing subjects and material from semester to semester. May be repeated once for credit with a different topic. **Will not count toward journalism major requirements.**

C300 The Citizen and the News (3 cr.) A study of the institutions that produce news and information about public affairs for the citizen of American mass society. The problems about the selection of what is communicated. Case studies. International comparisons. **Will not count toward journalism major requirements.**

C327 Writing for Publication (3 cr.) A workshop for nonmajors to improve writing skills and learn basic requirements of writing for publication. Instruction in market analysis and interpreting specific editorial requirements, in gathering and

researching background materials, and in preparing manuscripts. Examination of various types and styles of published writing. **Will not count toward journalism major requirements.**

J100 Computer Methods for Journalism (3 cr.)

An introduction to computing uses in journalism. Hands-on experience with computer software packages commonly used in journalistic research and expression. Experience with using the Internet, Nexis/Lexis, and other library resources for research. This course is for students on the Indianapolis campus only. Bloomington students take SLIS L155 Information Resources in Journalism.

J110 Foundations of Journalism and Mass Communication (3 cr.) Survey of the institutions of journalism and mass communication, their philosophical foundations, history, processes, economic realities, and effects. I Sem., II Sem.

J200 Reporting, Writing, and Editing I (3 cr.)

P: W131 or its equivalent and fundamental computer skills. P or C: SLIS L155 in Bloomington, J100 in Indianapolis. Working seminar stressing the creation of journalistic stories for diverse audiences. Students will learn to develop story ideas, gather information, combine visual and verbal messages, and to write and edit news.

J201 Reporting, Writing, and Editing II (3 cr.)

P: J200. Working seminar focused on the strengthening of basic journalism skills, including in-depth reporting, editing, and multimedia presentations. Creativity, cooperation, and critical thinking are used to shape effective messages for diverse audiences.

J210 Visual Communication (3 cr.) Theories of visual communications including human perception, psychology of color, and principles of design. Application of those theories to photography, video, and graphic design in news communication. I Sem., II Sem., SS.

J219 Introduction to Public Relations (3 cr.)

Provides an overview of public relations and introduces theory and practice of the field. Topics include the relationship between public relations and marketing, the history and development of public relations, media relations, measurement and assessment methods, ethics, and law.

J300 Communications Law (3 cr.) P: sophomore standing. History and philosophy of laws pertaining to free press and free speech. Censorship, libel, contempt, obscenity, right of privacy, copyright, government regulations, and business law affecting media operations. Stresses responsibilities and freedoms in a democratic communications system. I Sem., II Sem., SS.

J315 Feature Writing (3 cr.)

P: J200, J201, J210. Emphasis on developing story ideas, identifying sources, organizing materials, planning and outlining the story. Techniques for capturing the reader's interest.

J320 Principles of Creative Advertising (3 cr.)

Analysis of strategy employed in developing creative advertising, with emphasis on role of the copywriter. Research, media, legal aspects, ethical standards as they apply to the copywriting functions. Place of the

creative function within the advertising agency and the retail business. I Sem., II Sem.

J321 Integrated Marketing Communications (3 cr.)

Students are introduced to the creative integration of advertising and public relations as a mass media campaign tool. Topics include the role of integrated communications in marketing and media, an examination of current practice, and the creative process of a campaign, including planning strategies and media characteristics.

J335 Retail and Direct Advertising (3 cr.)

P: J200, J201, J210, J320. Role of advertising in retail and service establishments. Forms of retail and direct media advertising, including production and distribution. Procedures, requirements, and techniques of newspaper advertising departments and broadcast stations; in-store promotions; budgeting; evaluation.

J337 Media Economics (3 cr.) This course explores how economic forces influence production of media content, particularly at U.S. organizations. It examines basic economic concepts, such as market and competition, as they relate to commercial media organizations. Special attention is paid to the effect of advertising and market considerations on news decision making.

J341 Newspaper Reporting (3 cr.)

P: J200, J201, J210. Techniques of gathering, analyzing, and writing news and features for newspapers. Practice in interviewing, observation, and use of documentary references that include computer information retrieval and analysis skills. I Sem., II Sem.

J342 Magazine Reporting (3 cr.)

P: J200, J201, J210. Techniques of gathering, analyzing, and writing material for specialized and general circulation magazines. Practice in interviewing, observation, and use of documentary references that include computer information retrieval and analysis skills. I Sem., II Sem.

J343 Broadcast News (3 cr.)

P: J200, J201, J210. Techniques of gathering, analyzing, and writing news and features for broadcast. Practice in interviewing, observation, and use of documentary references that include computer information retrieval and analysis skills. I Sem., II Sem.

J344 Photojournalism Reporting (3 cr.)

P: J200, J201, J210. This is an introductory photojournalism course focusing on the basics of light, camera operation, and the use of chemical and digital darkrooms. It includes instruction in spot news and feature photography as well as instruction in ethics, privacy, and law.

J351 Newspaper Editing (3 cr.)

P: J200, J201, J210. Workshop in fundamentals of editing newspapers, including both individual and team projects. Emphasis on news judgment, fairness, accuracy, editorial balance, and language usage. Practice in writing news summaries, editing copy, writing headlines, laying out pages, and using computer editing technology. I Sem., II Sem.

J352 Magazine Editing (3 cr.)

P: J200, J201, J210. Workshop in fundamentals of editing specialized and general interest publications. Individual and team

functions are stressed. Attention is given to editorial voice and judgment, fairness, accuracy, and language usage. Practice in writing headlines and titles, layout, design, and use of computer editing technology. I Sem., II Sem.

J353 Advanced Broadcast News (3 cr.) P: J200, J343. Continuing workshop in reporting, writing, and editing for broadcast. Individual and team functions are stressed. Emphasis on news judgment, fairness, accuracy, editorial balance, and language usage. Practice in editing copy, audio, and video tape. I Sem., II Sem.

J354 Photojournalism Editing (3 cr.) P: J344, or permission of the instructor. Workshop on the role and function of the print media picture editor. Theory and practice of picture editing skills including assigning, selecting, cropping, writing captions and blurbs, producing informational graphics, designing photo pages, editing by computer, and managing.

J385 Television News (3 cr.) P: J343 and J353, or consent of instructor. Preparation and presentation of news for television. Practice in writing, reporting, filming, and editing news for TV. TV writing problems; use of photographs, film, and videotape; problems of sound in TV news; ethical problems of the TV film reporter and editor.

J390 Corporate Publication (3 cr.) A comprehensive survey of corporate publications from newsletters to corporate magazines, tabloids, and annual reports with an emphasis on layout and design. Includes refreshing writing skills with review on interviewing and editing.

J401 Depth Reporting and Editing (3 cr.) P: one 300-level reporting course and one 300-level editing course. Study and practice in using techniques of social science and traditional methods of investigative reporting. Class will plan, write, and edit news stories in depth.

J407 Newsgathering and the Law (3 cr.) Students study the law relating to the content of news media and the processes by which that content is created. Discussion includes the legal issues triggered by story framing, selection of sources, interviewing, photography, and access to information. The course involves reading and research using primary legal materials.

J409 Media Management (3 cr.) Research seminar that examines techniques and processes used in managing media organizations. Through discussions, case analysis, and group projects, the course explores organizational missions and social responsibilities, market analysis techniques, personnel management issues, and budgeting.

J410 The Media as Social Institutions (3 cr.) P: J300, senior standing. Examination of the functions and impact of the mass media in society with primary focus on the United States. Discussion of the values of media organizations and the professional and ethical values of journalists. Critical analysis of the relationship of the media and society and the

effect of political, economic, and cultural factors on the operation of the media. I Sem., II Sem., SS.

J414 International News-Gathering Systems (3 cr.) Structure and function of international communication systems and barrier to flow of information among nations. Emphasis on gathering and disseminating information around the world. Study of the major newspapers of the world, international news agencies, and international broadcasting and satellite networks.

J415 Literary Journalism (3 cr.) A study of literary forms and techniques used in journalism. Topics to be considered include formal considerations such as voice and structure, reporting methods, and ethical issues. Students will supplement reading with writing experimental pieces of their own.

J420 Advertising as Communication (3 cr.) P: J200, J201, J210, J320. Lectures and practice in copywriting, graphics, layout, and production. Incorporates psychological, social, legal, and marketing aspects of creativity for mass media. I Sem., II Sem.

J423 Public Opinion (3 cr.) Behavioral study of nature, operation, molding, and influence of public opinion, with practice in its measurement and evaluation. Discussion of major political, social, economic, and cultural problems.

J425 Supervision of School Publications (3 cr.) P: 12 credit hours of journalism. Lectures and discussion on designing, producing, and financing school newspapers, magazines, and yearbooks. Management of school news bureau. I Sem.

J427 Public Relations in a Democratic Society (3 cr.) Lectures and discussion on dissemination of public information by industry and institutions. Examination of procedures and policies and evaluation of public relations efforts. Contrasts public relations practices in America with those in other nations and cultures. I Sem., II Sem.

J428 Public Relations Management (3 cr.) P: J319 or J427. Theories and principles relevant to public relations practices in agency, corporate and nonprofit organizations, including development of goals and objectives, client relationships, budgets, and research methods.

J429 Public Relations Campaigns (3 cr.) P: J319 or J427. Development and execution of a public relations campaign for a nonprofit organization. Public relations theory and in-depth case study analysis.

J431 Public Relations for Nonprofits (3 cr.) This seminar focuses on how a nonprofit organization creates images and how it shapes its programs and goals to gain public support. Assignments and readings are designed to foster a practical understanding of promotional techniques and campaigns using journalistic and other media.

J438 Problems in Advertising (3 cr.) P: J320, permission of the instructor. Seminar on current

developments and problems concerning advertising as an economic and social force. Stresses independent investigation on topics such as politics and advertising and advertising and public taste.

J444 Advanced Photojournalism (3 cr.) P: J344. Advanced techniques of reporting and interpreting news with photography. Practice in news, sports, features, photographic essays, color photography, electronic imaging, and studio illustration.

J450 History of Journalism (3 cr.) American social-intellectual history integrated with the story of news media development, emphasizing the historical relationship of the mass media to American social, economic, and cultural patterns and developments. Origin, growth, shortcomings, and achievements of media. Impact of society on the media and vice versa.

J455 News Analysis and Opinion Writing (3 cr.) P: J200, J201, J210. Techniques for understanding, analyzing, and reporting on complex events and issues. Development and refinement of skills and techniques for writing news analysis, editorials, and opinion articles.

J460 Topics Colloquium (1-3 cr.) P: junior or senior standing. Topical seminar dealing with changing subjects and material from semester to semester. May be repeated once for credit with a different topic.

J463 Computerized Publication Design I (3 cr.) P: J200, J201, J210. This publishing design course incorporates typesetting, electronic photo editing, graphics, and page design. Students are instructed in design theory, computer publishing skills, and creative problem solving.

J465 Computerized Publication Design II (3 cr.) P: J463. This publishing design course incorporates typesetting, electronic photo editing, graphics, and page design. Students are instructed in design theory, computer publishing skills, and creative problem solving.

J470 Broadcast Media Analysis (3 cr.) Seminar on problems of communicating news through aural and visual channels. Application of communications theory to broadcast news and public affairs presentations. Study of effects of format, verbal content, nonverbal content, and presenter on communications process.

J475 Race, Gender, and the Media (3 cr.) Survey and analysis of how news and entertainment media represent issues of race and gender. History of women and people of color as media professionals and media consumers. Discussion of contemporary problems and potential solutions.

J492 Media Internship (S/F grading) (1 cr.) P: prior approval of faculty member; journalism majors only. Supervised professional experience in communications media. Does not contribute to 30 credit hours of required course work in journalism major, but will count toward 36 credit hours maximum allowed in journalism and telecommunications. May be repeated, but a student

may take no more than 3 credit hours total of internship credit for the B.A.J. degree, either through journalism or any other academic unit.

J493 Journalism: Off-Campus Registration (0 cr.) This noncredit course is for journalism students studying off campus temporarily as part of the Bachelor of Arts in Journalism degree program.

J496 Foreign Study in Journalism (3-8 cr.)
P: consent of the dean of the School of Journalism. Planning of research project during year preceding summer abroad. Time spent in research abroad must amount to at least one week for each credit hour granted. Research paper must be presented by end of semester following foreign study. I Sem., II Sem., SS.

J499 Honors Research in Journalism (1-3 cr.)
Opportunity for independent reading, research, and experimentation on relevant issues in mass communications. Work with faculty member on individual basis. I Sem., II Sem., SS.

Administrative Officers and Faculty of the School of Journalism 2002-04

Administrative Officers

TREVOR R. BROWN, Ph.D., *Dean*

JAMES W. BROWN, Ph.D., *Associate Dean, Indianapolis*

BONNIE BROWNLEE, Ph.D., *Associate Dean for Undergraduate Studies*

JACK DVORAK, Ph.D., *Director of High School Journalism Institute*

DAN DREW, Ph.D., *Associate Dean for Graduate Studies and Research*

Faculty

Bjork, U. Jonas, Ph.D. (*University of Washington, 1987*), *Associate Professor*

Brown, James W., Ph.D. (*Indiana University, 1977*), *Professor and Associate Dean*

McKeand, Patrick J., M.A. (*Ball State University, 1983*), *Lecturer and Publisher of The Sagamore*

Ricchiardi, Sherry, Ph.D. (*Iowa State University, 1986*), *Associate Professor*

Appendix: Indianapolis Course Lists

1. Approved Advanced Composition Courses by Departments

English

L202 Literary Interpretation
L213 Literary Masterpieces I
L214 Literary Masterpieces II
L220 Introduction to Shakespeare
W231 Professional Writing Skills
W301 Writing Fiction
W303 Writing Poetry

Journalism

J341 Newspaper Reporting
J342 Magazine Reporting
J343 Broadcast Reporting
J413 Magazine Article Writing
J455 News Analysis and Opinion Writing
J551 Seminar: Reporting the Law
J552 Seminar: Reporting the Arts
J553 Education and the Media
J554 Seminar: Science Writing
J556 Seminar: Urban Affairs Reporting

2. Approved Distribution Courses by Departments

Department	Arts & Humanities	Social & Historical Studies	Natural & Mathematical Sciences
Afro-American Studies	A150, A303, A352 A402, A495		
American Studies	A103, A301, A302 A303		
Anthropology		A103, A104, A303 A304, A360, A361 A395, A401, A403 A485, B370, B466 B480, E300, E310 E316, E320, E380 E402, E445, E455 E457, E470	
Astronomy			A100, A105
Biology			K101, K103, K309 K322, K331, K332 K338, K341, K356 K483, 501, 530 551, 556, 557 569, 570, 571 583, N100, N107 N200, N212, N214 N217, N222, N251 N261, N322
Chemistry			C100, C101, C102 C105, C106, C111 C112, C209, C310 C325, C341, C342 C360, C361, C362 C430, C483, 533 542, 561, 575 634, 636, 641 651, 652, 657 669, 672, 675
Classical Studies	A301, C205, C310 C311, C351, C361 C414, C491		
Comparative Literature	C190, C255, C256 C358, C390, C391 C392, C393, C394 C493, C494		
Computer Science			201, 205, 206 207, 208, 220 230, 300, 308 330, 335, 402 403, 414, 437 440, 446, 450 461, 482, 484
Criminal Justice		J101, J301, J305 J306, J320, J321 J331	
Economics		E100, E101, E111 E112, E201, E202 E270, E307, E321 E322, E323, E325 E333, E340, E350 E360, E363, E375 E380, E385, E387 E410, E420, E430 E441, E447, E470 E485, E495	

Department	Arts & Humanities	Social & Historical Studies	Natural & Mathematical Sciences
English	L105, L115, L200 L202, L203, L204 L205, L206, L207 L208, L210, L213 L214, L220, L301 L302, L305, L313 L314, L315, L332 L335, L345, L346 L348, L351, L352 L354, L355, L358 L360, L363, L365 L366, L370, L371 L372, L373, L374 L376, L381, L382 L385, L387, L390 L393, L431, L440		
Folklore	F101, F220, F360 F391, F393, F425		
French	F300, F307, F360 F410, F428, F443 F444, F452, F453 F454, F455, F456		
Geography		G110, G130, G201 G315, G318, G319 G321, G322, G323 G326, G327, G331 G355, G365, G390 G410, G419, G421 G424	G107, G123, G303 G307, G350, G403 G446, G472, G475 G488
Geology			G107, G108, G110 G115, G130, G221 G222, G300, G323 G334, G403, G404 G406, G413, G415 G416, G430, G451
Germanic Studies	G265, G291, G365 G370, G371, G381 G382, G383, G384 G391		
History		A221, A325, A326 A348, A364, A371 A372, A390, A402 A410, A420, A421 B221, B340, B341 B342, B375, B376 B383, B384, B385 B393, B421, C395 D313, D314, F341 F342, F444, G367 G368, H105, H106 H108, H109, H113 H114, H117, H205 H215, H221, H323 H324, H373, H374 H375, J410, J421 J425, J493, J495	
Linguistics		L103, G104, G205 G206, G301, G302 G310	
Mathematics			M118, M119, 153 154, 163, 164 221, 222, 261 262, 300, 351 375, 426, 441 442, 453, 462
Music	M110, M174, M393 Z103, Z201, Z320		

Department	Arts & Humanities	Social & Historical Studies	Natural & Mathematical Sciences
Philosophy	P110, P120, P210 P220, P221, P237 P280, P281, P283 P314, P316, P317 P323, P325, P326 P331, P337, P338 P358, P367, P368 P382, P383, P385 P393, P394, P414 P433, P441	P262, P265, P365	
Physics			100, 200, 218 219, P201, P202 152, 251, 300 310, 322, 330 342, 416, 442 480, 499, 501 510, 515, 517 520, 530, 545 550, 556
Political Science		Y101, Y103, Y200 Y205, Y211, Y215 Y217, Y219, Y301 Y302, Y303, Y304 Y305, Y307, Y308 Y311, Y319, Y322 Y333, Y335, Y337 Y338, Y339, Y341 Y343, Y345, Y360 Y369, Y373, Y374 Y378, Y380, Y381 Y382, Y384, Y388 Y394	
Psychology		B104, B310, B354 B360, B366, B368 B370, B374, B376 B380, B420, B424 B460	B105, B211, B305 B307, B320, B334 B340, B344, B356
Religious Studies	R100, R133, R200 R211, R212, R223 R233, R243, R273 R283, R284, R293 R300, R303, R310 R313, R320, R325 R326, R337, R339 R343, R352, R360 R383, R393, R400		
Sociology		R100, R121, R220 R234, R239, R251 R295, R305, R312 R315, R316, R317 R320, R321, R325 R329, R330, R338 R344, R345, R346 R356, R357, R359 R381, R382, R410 R420, R461, R463 R467, R476, R478 R480, R481, R490 R495	
Spanish	S230, S231, S240 S241, S305, S306 S411, S412, S431 S432, S445, S447 S455, S457, S461 S470, S471, S472 S477		
Women's Studies		W300, W350	

3. Approved Culture Studies Courses

List A

Anthropology

E300 Culture Areas and Ethnic Groups:
 “Modern Greek Society”
 “People and Cultures of Southeast Asia”
 E310 Introduction to the Cultures of Africa
 E320 Indians of North America
 E356 Cultures of the Pacific

Classical Studies

C205 Classical Mythology
 C351 The Golden Age of Athens
 C361 The Golden Age of Rome
 C414 Art and Archaeology of Rome

Folklore

F360 Indiana Folklore/Folklife/Folk Music

Geography

G321 Geography of Europe
 G322 Geography of the Soviet Union
 G323 Geography of Latin America
 G390 Geography of Italy
 G390 Geography of Cuba
 G424 Geography of Africa

History

B340 Ireland and Her People
 B341 History of Spain and Portugal
 B351 Barbarian Europe, 200–1000
 B352 The Age of Chivalry, 1000–1500
 B353 The Renaissance
 B354 The Reformation
 B356 French Revolution and Napoleon
 C388 Roman History
 C395 The Ancient Near East and Greece
 D313 Russian Social and Cultural History
 D314 Soviet Social and Cultural History
 E432 History of Africa II
 G367-368 History of Japan I-II
 H205 Ancient Civilization

Philosophy

P210 Classical Philosophy

Political Science

Y333 Chinese Politics
 Y336 Southeast Asian Politics
 Y337 Latin American Politics
 Y338 African Politics
 Y339 Middle Eastern Politics
 Y369 Introduction to East Asian Politics

Religious Studies

R310 Prophecy in Ancient Israel
 R352 Religion and Literature in Asia

List B

Art (Herron)

H302 Beginnings of 20th Century Art, 1886-1919

Folklore

F312 European Folklore/Folklife/Folk Music
 F363 Women Folklore/Folklife/Folk Music

French

F452 La civilisation et littérature québécoise
 F453-F454 Littérature contemporaine I-II

German

G265 German Culture in English Translation
 G370 German Cinema

History

B357 Modern France
 B359-B360 Europe from Napoleon to the First World War I-II
 B393 German History: From Bismarck to Hitler
 B421 Germans, Jews, and the Holocaust
 H209-H210 English History: General Course I-II

Political Science

Y335 Western European Politics

Spanish

S411 Spanish Culture and Civilization

List C

Afro-American Studies

A150 Survey of the Culture of Black Americans
 A352 Afro-American Art II: Afro-American Artists

Anthropology

E336 African American Culture
 E402 Gender in Cross-Cultural Perspective

English

L208 Native American Literature
 L370 Black American Writing

Folklore

F245 Chicano Folklore
 F394 Afro-American Folklore

History

A364 History of Black Americans

Journalism

J475 Race, Gender, and the Media

Religion

R100 Native American Religion



INDIANA UNIVERSITY SCHOOL OF LAW INDIANAPOLIS



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Contents

- 275 School of Law—Indianapolis
 - 275 Opportunity
 - 275 Faculty and Curriculum
 - 275 Joint Degree Programs
 - 275 Research Centers and Foreign Study Programs
 - 275 Student Programs
 - 275 Campus Visits and Additional Information

School of Law— Indianapolis

Located in the dynamic heart of Indiana, the Indiana University School of Law—Indianapolis operates in synergy with government, business, and the community to foster an environment where education flourishes. Founded as the Indiana Law School in 1894, the school has today emerged as a premier educational institution.

At its inception, the school's purpose was to provide a place where those individuals who were engaged in building Indiana's vibrant, young state capital could seek out the kind of quality legal education otherwise unavailable without great travel and expense. That same vision of excellence remains at the core of the law school today.

Opportunity

The IU School of Law—Indianapolis prepares students for a wide range of diverse and exciting careers. From practicing law to managing corporations, graduates of the law school excel not only in Indiana, but also across the country and around the world. Law school alumni have served in the highest offices in government, including the U.S. Vice Presidency, the Senate, and the House of Representatives.

The Indianapolis legal and business communities offer opportunities for connections that no other law school in the state can provide. Many of the school's adjunct professors come from some of the most prestigious law firms in the state. Additionally, an attorney-student mentor program allows students to meet a variety of area attorneys, judges, and business and government leaders in an informal setting.

Internships are available in a vast array of institutions, including banks, corporations, and government offices. Many internships also are available with local, state, and federal courts. Because of its location in an urban setting, the school is able to offer clinical programs designed to complement traditional legal education with experience beyond the classroom. With faculty supervision, students represent real clients in actual cases before Indiana courts through the Criminal Defense, Civil Practice, and Disability Clinics.

Faculty and Curriculum

Faculty members hold Doctor of Jurisprudence, master's and doctoral degrees from nearly 50 different schools, offering students extensive and diverse views on the law and its career possibilities. Assembled from across the country, the faculty has distinguished itself with a wide variety of scholarly publications related to state, national, and international legal matters.

Relevant to the needs of today's law students, the school's curriculum is traditional in philosophy, yet flexible in content and structure. The curriculum offers numerous elective courses in addition to the basic core of introductory courses in civil procedure,

contracts, criminal law, property, torts, and legal research and writing.

A student may pursue a J.D. degree on a full-time basis in the school's day division or on a part-time basis through the evening program. Typically, a full-time student will complete the 90 required hours within three years, while a part-time student will do so within four years.

Joint Degree Programs

Joint degree programs are offered in cooperation with the IU School of Business, the School of Public and Environmental Affairs, and the Department of Public Health within the IU School of Medicine. These include:

- J.D. and Master of Business Administration
- J.D. and Master of Public Affairs
- J.D. and Master of Public Health
- J.D. and Master of Science in Health Administration

Research Centers and International Programs

The school's Center for Law and Health is one of the few law school programs in the country offering interdisciplinary opportunities for students of law and the health care industry. The center, which serves as an information resource on health care issues for the law and medical community, also provides students with an avenue for researching health law reform issues facing Indiana and the nation.

The Program on Law and State Government enhances the ties between the academic community and state government offices, providing a means of exchange of ideas on issues facing state governments, as well as creating opportunities for internships for students within Indiana state government.

The Program in International Human Rights Law is designed to promote legal study and scholarship in international human rights and to facilitate the placement of students as legal interns at international human rights organizations in this country and overseas. Since 1997, the program has coordinated 42 student placements in 33 countries.

The China Summer Program at Renmin (People's) University of China School of Law in Beijing includes comparative aspects of Chinese and American law and features trips to local courts and nearby points of interest.

The Program in European Law, offered in Lille, France, at the Université de Lille II, includes course work in European Union law, English law, and continental legal systems. Students participate in field trips to legal institutions in four countries.

Additionally, the school's LL.M. Program in American Law for Foreign Lawyers provides attorneys from other countries with an opportunity to learn about law and legal institutions in the United States. The program, established in 2002, further enhances the school's ties to the international community.

Student Programs

The school's two law reviews, the *Indiana Law Review* and the *Indiana International and Comparative Law Review*, provide invaluable opportunities for training in the analysis of legal problems and presentation of legal issues.

The Moot Court Program encourages the development of skills in oral advocacy. The Order of Barristers is composed of the best students in the program, and its members serve on regional and national teams, where they have achieved prominence in competitions.

The school also sponsors a variety of student organizations that focus on a number of discrete legal areas of interest to students. Additionally, the school invites a number of distinguished and well-known speakers to the school. Students hear lectures by legal scholars, historians, distinguished practicing attorneys, and jurists from around the country.

Campus Visits and Additional Information

We encourage you to visit us and meet with our staff and students. To arrange for a visit or request an application, please write or call our Admissions Office, IU School of Law—Indianapolis, 530 W. New York Street, Indianapolis, IN, 46202-3225; telephone (317) 274-2459; or e-mail khmiller@iupui.edu. Web: indylaw.indiana.edu. We look forward to hearing from you.



INDIANA UNIVERSITY SCHOOL OF LIBERAL ARTS



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Contents

279	School of Liberal Arts
279	Admission and Transfer
280	Undergraduate Degree Programs
280	Bachelor of Arts
283	Associate of Arts
283	Graduate Degree Programs
283	Academic Policies
284	Special Opportunities
285	Awards and Scholarships
287	School Resources and Centers
288	Departments and Programs
288	Afro-American Studies
288	American Sign Language/English Interpreting
289	American Studies
290	Anthropology
294	Communication Studies
297	Economics
301	English
308	Film Studies
308	Foreign Languages and Cultures
319	Geography
322	History
326	Individualized Major Program
327	International Studies
329	Legal Studies Minor
329	Medical Humanities and Health Studies
330	Museum Studies
332	Philanthropic Studies
333	Philosophy
335	Political Science
338	Religious Studies
340	Sociology
344	Urban Studies
344	Women's Studies
345	Administration
346	Faculty

School of Liberal Arts

A liberal arts education begins with the premise that one's world and one's self are at the core of the pursuit of knowledge. It leads to viewing the world from more than one perspective and learning something about its social, cultural, intellectual, and spiritual dimensions. Those different perspectives within the liberal arts encompass two major groups of academic disciplines: the humanities, which explore the history and experience of human culture, and the social sciences, which examine the social and material foundations of human life. Regardless of the perspective, the focus in the liberal arts is on knowledge itself, on both its substance and the tools for pursuing it, on what is known and what is worth knowing. Skills for acquiring and generating knowledge, as well as the preservation of knowledge, are enfolded within the School of Liberal Arts curriculum.

Liberal arts graduates are expected to read and listen effectively, to speak and write clearly and persuasively. They learn how to think critically and creatively. As perceptive analysts of what they read, see, and hear, liberal arts students are expected to be able to reason carefully and correctly and to recognize the legitimacy of intuition when reason and evidence prove insufficient. They learn to use various analytical tools, such as mathematics and statistics, to enable them to undertake quantitative analysis when such a strategy is appropriate.

Furthermore, students in the liberal arts, by developing communication skills in both English and at least one foreign language, equip themselves to communicate with others within their own culture and different cultures. This ability to communicate requires insights into diverse patterns of thought and modes of expression. Such insights allow students to identify universal, as well as unique, aspects of their culture, their community, and themselves.

Students in the liberal arts spend a substantial amount of time studying local and international human communities. Students cultivate an informed sensitivity to global and environmental issues by exploring the range of social, geographic, economic, political, religious, and cultural realities influencing world events.

Liberal arts students do not limit their studies to the here and now. A liberal arts education requires the development of a historical consciousness, so that students can view the present within the context of the past, can appreciate tradition and what the preservation of knowledge implies, and can understand the critical forces that influence the way we think, feel, act, and speak.

In the midst of discussions of theoretical frameworks and appropriate methods of gathering and verifying data, liberal arts students consider social problems such as poverty, pollution, crime, racism, and sexism. Such consideration leads to an even greater appreciation of the dynamics of change and of what different perspectives have to offer.

A quality liberal arts education also includes an appreciation of literature and the arts and the cultivation of the aesthetic judgment that makes possible the enjoyment and comprehension of works of the creative imagination.

The liberal arts curriculum helps students examine ethical perspectives, so that they can formulate and understand their own values, become aware of others' values, and discern the ethical dimensions underlying many of the decisions that they must make. The issues discussed and the individuals and points of view studied help define the citizen as an informed and responsible individual.

This course of study implies that to be educated is to be tolerant, open to others and their ideas, and willing to admit the validity of alternative approaches. Interdisciplinary courses in which students are asked to consider the same subject from varied perspectives enhance that aspect of the liberal arts education.

General knowledge of the liberal arts provides a firm foundation for productive and responsible citizenship. When professional and personal decisions and actions are informed by knowledge, rationality, and compassion, they make the greatest contribution to a better world.

The broad knowledge and course of study described above as characteristic of a good liberal arts education is coupled with an in-depth exploration of at least one particular academic discipline, a major. Liberal arts students acquire a coherent, sophisticated understanding of a major body of knowledge with all its complexities, unique methodologies, power, and limitations. The major provides a foundation for additional academic study or for advancement within a chosen career. But because of the demanding general requirements, a liberal arts course of study protects students from the pitfalls of overspecialization too early in their postsecondary education.

A liberal arts education is an ideal preparation for professional life, encouraging students to pursue subsequent specialization within a framework of intellectual breadth and creativity. More than just training for today's occupations, however, the humanities and social sciences offer students the skills and flexibility they will need as they move on to careers and occupations not yet known or imagined.

Whether just out of high school or returning to college after being away for decades, students will discover a liberal arts course of study prepares them for the present and the future, for the personal and the professional.

Who Should Use This Bulletin

The 2002-2004 *Bulletin* presents the degree requirements for the School of Liberal Arts effective June 1, 2002. Students admitted to the School of Liberal Arts must satisfy degree requirements as described herein. Students accepted to the School of Liberal Arts prior to fall semester 2002 and continuously enrolled since then (excluding summer sessions) either may meet the school's requirements at the time they were initially accepted as a liberal arts major or they may elect the requirements as described below. Students who are not continuously

enrolled or who take more than eight years of classes to complete their degrees should confer with the dean of student affairs in the school to determine the requirements applicable to their degrees.

Admission and Transfer

All students entering the School of Liberal Arts (SLA) must be admitted officially to IUPUI by the Office of Admissions or by another Indiana University campus as a degree-seeking student.

After students have been admitted by IUPUI, they must also be admitted by the specific school in which they intend to pursue a degree. The School of Liberal Arts welcomes nontraditional students and recent high school graduates if they wish to pursue a liberal arts degree and meet the school's requirements for admission. Students can be admitted before they have selected a major if their general interests lie in the humanities or social sciences.

Many liberal arts students are transfer students coming from another college or university, another Indiana University campus, or another division of IUPUI. Procedures for transferring into the School of Liberal Arts and special arrangements for transfer students are described below.

Dual Admission

The School of Liberal Arts encourages the dual admission of qualified IUPUI freshmen and transfer students into the school as well as into University College. Completion of the Indiana Academic Honors diploma while in high school is highly encouraged and an excellent preparation for a liberal arts degree. Students who know which major they wish to pursue may be admitted to the respective department while undecided applicants are admitted to the school as undecided majors.

To be eligible for dual admission, applicants must meet the general university and campus requirements. Applicants who have been out of high school two or more years are not required to submit test scores, although the standardized tests are highly recommended; evaluation of students who request admission without presenting test scores will be made on an individual basis.

Transfer Students

The School of Liberal Arts welcomes transfer students and is committed to making their transition and transfer of credit as smooth as possible. At any time thereafter, a student with a minimum grade point average of 2.0 (C) may transfer to the School of Liberal Arts by filing a Change of Record form. Transfer students who have questions about how their previous course work will apply to their degree, or who encounter difficulties in the process of transferring credit or records, should contact the School of Liberal Arts Office of Student Affairs, Cavanaugh Hall 401, or call (317) 274-3976.

Probationary Admission

Individuals interested in transferring to the School of Liberal Arts whose college grade point average is lower than 2.0 (C) may petition for probationary admission. Special consideration is given to adult learners and students returning after five or more years.

Petitions are available from the School of Liberal Arts Office of Student Affairs, Cavanaugh Hall 401, (317) 274-3976. Transfer students, either within IU or from other colleges or universities, should attach a copy of their college transcript. Petitions are reviewed by the School of Liberal Arts Associate Dean and should be submitted by the following deadlines:

To enroll for the fall semester July 15

To enroll for the spring semester November 15

To enroll for summer session April 15

At the discretion of the Associate Dean, the school will ordinarily admit transfer students whose past performance, experience, or current situation show reasonable potential for successfully completing a degree. Such students are counseled through the Office of Student Affairs or their major department and remain on probation until their cumulative grade point average is raised to at least 2.0 (C).

Undergraduate Degree Programs

The School of Liberal Arts offers a four-year Bachelor of Arts degree, a Bachelor of Science in American Sign Language degree, a two-year Associate of Arts degree, and a variety of structured minors and certificate programs for students pursuing liberal arts or other degrees. The programs and requirements described below apply in the School of Liberal Arts at Indianapolis.

Statement of Goals

Graduates of the School of Liberal Arts (SLA) should exemplify the ideals of a liberal arts education. They should be broadly educated across the disciplines and well trained in a particular major. They should have (1) proficiency in reading, writing, and speaking skills; (2) competence in quantitative, language, and analytic skills; (3) a broadly based experience in the humanities, social sciences, and natural sciences; and (4) a major area of study. Although faculty and counselors are available to help students acquire these proficiencies and attitudes, learning must be self-motivated. To be taught, one must first be interested in learning. A liberal arts education, therefore, is the responsibility of the individual student.

By graduation, SLA students should have developed

1. appreciation of the personal and public value of knowledge;
2. ability to acquire and use knowledge;

3. awareness of their own values and commitments and an understanding of different values held by others;
4. adequate mastery of the skills of both interpersonal and public communication;
5. concern for and responsiveness to contemporary events, issues, and problems, as seen and interpreted through the perspectives of the humanities and social sciences;
6. qualifications for meaningful employment and ability to master the specific skills required by that employment;
7. appreciation of the cultural significance of science and technology and their impact on our natural and social environment.

Thereby, they become discerning and responsible citizens of this nation and the world.

Bachelor of Arts Requirements

All students admitted to the School of Liberal Arts after June 1, 2002, must fulfill the requirements described below. Students admitted before that date may elect these requirements by informing their advisor and the Office of Student Affairs or may obtain their degree under the requirements in effect at the date they were admitted to the School of Liberal Arts.

All students must meet three types of requirements: general-education requirements, distribution requirements, and major requirements. Questions about general-education and distribution requirements can be answered by the School of Liberal Arts Office of Student Affairs, Cavanaugh Hall 401, (317) 274-3976. Questions about major requirements should be directed to a faculty advisor or the chairperson of the major department.

General Education Requirements

1. A minimum of 122 credit hours is required for a B.A. degree in the School of Liberal Arts. The B.S. requires 134-135 credit hours.
2. A minimum cumulative grade point average of 2.0 (C) is required for graduation.
3. A minimum of 30 credit hours must be at the 300-400 level.
4. A minimum of 26 credit hours must be completed after formal admission to the School of Liberal Arts. This requirement may be waived by petitioning the Academic Affairs Committee. Petitions are available in Cavanaugh Hall 401.
5. Students must complete a minimum of 12 credit hours of their major course work in residence in the appropriate department in the School of Liberal Arts. Some departments have more restrictive residency requirements. Check with your advisor.
6. Courses taken using the Pass/Fail option can be applied *only* as electives or toward the 300 to 400 level requirements (Area III of the distribution

requirements for the bachelor's degree). A maximum of eight courses, with no more than two per year, may be taken.

7. With permission from the departmental advisor and the Office of Student Affairs, a maximum of 12 credit hours may be taken by correspondence through the School of Continuing Studies.
8. All candidates for degrees in May and August must file an application for the degree by December 1 of that year. All candidates for December degrees must file an application for the degree by September 1 of that year. Candidates for degrees in December, May, or August may participate in the May commencement.
9. Credit hours from the following courses will not count toward the 122 hours needed for graduation: English E010, W001, G010, G011, G012, and G013; Math M130, M131, M132, and any math course lower than M118; Business C221, C222, and C225.
10. Once a course has been applied toward one requirement, it cannot be used to satisfy a second requirement, except where explicitly stated otherwise. In addition, except in cases of variable title courses, internships, and other special courses, no course will be counted more than once toward graduation.
11. A maximum of 9 credit hours in unapproved electives can be counted toward the degree.

Distribution Requirements

The requirements for SLA's baccalaureate degree programs include the common general education core approved by the faculties of both the School of Liberal Arts and the School of Science, and is a curriculum based on the IUPUI Principles for Undergraduate Education.

Candidates for the B.A. and B.S. degrees must complete the following requirements:

Core Course Requirements

A. First-Year Experience (1-3 cr.)

This course introduces students to IUPUI's culture and values; familiarizes them with campus resources, especially academic uses of technology; provides them with skills in dealing with life at IUPUI; and introduces them to an overview of the humanities and the social and natural sciences. Transfer students with 18 or more credit hours are not required to take this course. This course is cross-listed as follows:

School of Liberal Arts: S100

University College: UC110

B. Junior/Senior Integrator (3 cr.)

This course shows how the humanities and social and natural sciences are interrelated and interdependent. It examines the philosophical relationships among the areas of science, politics, and social policy as well as the crucial interplay among science and technology, the social order, and political decisions. Students must complete the following: one course in the major, English Composition W131 and W132, History H114, one science course, one math course (M118 or above), and one course from two of the following areas: humanities, social science, or comparative

world cultures. Ideally, students should complete one course from each of the three lists before taking the integrator course. This course may be used in Area III.

Lists of approved courses will be available in the *Schedule of Classes* and in the Office of Student Affairs (Cavanaugh Hall 401).

C. Capstone Experience (1-3 cr.)

The capstone course is generally taken in a student's major as a cumulative integrating experience that addresses the principles of undergraduate education as well as values and ethics as they relate to a student's major. The capstone may be an independent research project or study, a practicum, or a seminar or field experience building on students' previous work. Special interdisciplinary capstones may also satisfy this requirement. Check with your advisor about which courses satisfy this requirement.

Area I. Communications Core (19 cr.)

The courses in the communications core provide work in English and foreign language to help students organize and present their thoughts in an effective manner. Students should enroll in these courses as early in their college careers as possible.

English Composition (6 cr.) Competency in English composition is required. This requirement may be satisfied in the following ways:

1. by completing W131 (or W140) and W132 (or W150) with a grade of C (2.0) or better;
2. by becoming eligible for the W131 exemption portfolio through the English Placement Exam and receiving special credit for W131 after submitting a portfolio, and completing W132 (or W150) with a grade of C (2.0) or better; or
3. for transfer students, by completing course work equivalent to W131 (or W140) and W132 (or W150) with a grade of C (2.0) or better at another campus or institution.

The School of Liberal Arts strongly recommends that students complete English W131 (or W140) during their first semester or as soon afterward as placement test scores and course availability allow. Students should also take W132 as quickly as possible after becoming a Liberal Arts major.

Note: Special English as a Second Language (ESL) sections of W001 and W131 have been designated for students whose first language is not English.

Speech Communication R110 (3 cr.) Students with previously acquired competency in public speaking may be eligible for special credit and exemption from this requirement; contact the chairperson of the Department of Communication Studies, Cavanaugh Hall 309, (317) 274-0566.

Foreign Languages Requirement First-year competency is required and second-year competency is strongly recommended. This requirement may be satisfied in one of the following ways:

1. by completing first-year (10 credit hours) courses in a single language with passing grades;
2. by completing a second- or third-year course with a grade of C or better;¹

3. by taking a placement test and placing into the 200 level or higher; this waives the 100 level requirement but does not carry with it credit toward graduation.

This requirement may be met with first-year proficiency in American Sign Language.

Placement Test Students with previous experience in French, German, or Spanish should take the Foreign Language Placement Test at the Testing Center to assess their level of language preparation.

Students who have achieved elementary or intermediate proficiency in any other foreign language should confer with the Foreign Languages and Cultures department for placement in the correct level of that foreign language.

Students who complete the course into which they were placed with a grade of C or better are eligible for special credit at a reduced fee for the appropriate lower-division course(s) that precede the course taken. Foreign language special credit counts toward graduation and toward the foreign language requirements.

117 Courses Courses numbered 117 are reserved for students who have never studied the language before. Students who have had two or more years of formal study in a language may take a 117-level course in that language as a refresher course before enrolling in a more advanced course, but they must recognize that their work will be graded on a Satisfactory/Fail (S/F) basis. A grade of S is equivalent to a minimum grade of C.

Non-Native Speakers Students for whom English is not a first language may be exempted from the foreign language requirement, without credit, by completion of English W131 and W132 with the required grade of C or better.

Students whose native language is not English may demonstrate proficiency in their native language and earn 3 to 6 hours of 298/299 special credit by successfully completing an appropriate 300 level course. They may not, however, receive credit for taking first- and second-year courses in their native language.

Area II. Basic Courses

Analytic Skills (6 cr.) These courses provide the student with insight into the process of logical reasoning. Each student must complete 3 credit hours in mathematics (Math M118 or above) plus 3 credit hours in one of the following: mathematics², a statistics course (Economics E270, Geography G488, Psychology B305, Sociology R359, Statistics 301), a computer programming course (N201, N211), a course in logic (Philosophy P162 or P265), Sociology R251, Political Science Y205, or Computer Science N207. A logic or statistics course in a student's major can be applied toward the second requirement.

Computer science and computer technology courses that develop the student's problem-solving ability and promote the understanding and use of logical structures of thought are appropriate for the analytical skills requirement. Computer courses must focus on programming.

Natural Science (9-11 cr.) This area allows for a choice of courses exploring the natural phenomena of the world according to models of scientific thought. The credit hours are to be selected from at least two of the following areas:

Anthropology: A103

Astronomy: A100, A105

Biology: K101, K103, N100, N107, N200, N212, N213 (lab), N214, N215 (lab), N217, N251, N322

Chemistry: C100, C101, C102, C105, C106

Geography: G107, G108 (lab), G185, G303, G307

Geology: G107, G117 (lab), G109, G119 (lab), G110, G120 (lab), G206 (lab), G115, G132, G180

Physics: 100, 152, 200, 218, 219, 251, P201, P202

Psychology: B105

At least one of these courses must be a laboratory course.

Up to 5 credit hours in geography (G107, G108, G303, or G307) may be counted toward this requirement, but they cannot be counted toward the major as well. G108 may be counted as the laboratory component for this requirement.

History (6 cr.) These courses explore patterns and processes of history essential for making decisions in the present and give the background necessary for students to assume their responsibility as citizens. This requirement is fulfilled by taking H114 and either H108* or H113.*

Arts and Humanities (6 cr.) This area presents insights into aesthetics, ideas, and value systems.

The 6 credit hours must come from two of the areas below. Courses in one's major cannot be used to fulfill this requirement; however, one course taken as part of a minor may be used. Creative writing, drawing, performance, or studio courses will not satisfy the arts and humanities requirement.

American Studies A103

Afro-American Studies: A150*

Classics: C205*

English Literature: L105, L115

Fine Arts: Communication Studies (theatre) T130;

English (film) C190; Herron H100, H101, H102;

Music M174

Folklore: F101*

Foreign Languages and Cultures: F200, German G265, EALC E231 (Japanese)

History: H105, H106, H108*, H113*, H217

Philosophy: P110, P120

Religious Studies: R111, R120, R133*, R173, R180, R212*

Women's Studies: W105*

¹Students interested in receiving credit for lower-division language courses, see the section "Special Credit for Foreign Language Study."

²Additional mathematics courses for this requirement must be above M118 and may not include M130, M131, and M132.

*This course appears on more than one list or in more than one section. However, this course may be used to satisfy only one requirement unless specifically stated.

Social Sciences (6 cr.) This area uses procedures and information developed in the social sciences to examine the complexities of societies and human interaction. The 6 credit hours must come from two of the areas following. Courses in one's major cannot be used to fulfill this requirement; however, courses taken as part of a structured minor may be used to fulfill this requirement.

Afro-American Studies: A150*
 Anthropology: A104
 Communication Studies: C180
 Economics: E101, E201, E202
 Folklore: F101*
 Geography: G110*, G130
 History: H117
 Language Awareness: G104
 Political Science: Y101, Y103, Y213, Y219
 Psychology: B104, B310
 Public and Environmental Affairs: V170
 Sociology: R100, R121
 Women's Studies: W105*

Comparative World Cultures (3 cr.)** This area presents culture in a comparative and conceptual manner and includes material from several cultures.

Students must take one course from one of the areas below:

Anthropology: A104
 Classics: C205
 Foreign Languages and Cultures: F200
 Geography: G110
 History: H108
 Political Science: Y217
 Religious Studies: R133, R212

Transfer Credits Students with transfer work from other universities may have some of their work counted toward the distribution requirements, even if their courses, when transferred in, were not designated as matching the courses listed previously. The Office of the Associate Dean for Student Affairs and the departments, when appropriate, will determine whether transfer courses satisfy the distribution requirements.

Area III. Advanced Courses (15 cr. at 300-400 level)

In addition to advanced courses in one's major, the SLA student should conduct in-depth study in other areas of the liberal arts or sciences. Ordinarily, at least 15 credit hours of one's 300 to 400 level courses must be taken outside the major department and in four different departments or interdisciplinary programs within the School of Liberal Arts or the School of Science. However, when students believe that advanced courses outside the School of Liberal Arts or the School of Science or concentrated in fewer than four departments would strengthen their academic program, they may petition the Academic Affairs Committee in advance for permission to count non-SLA/School of Science courses and/or courses concentrated in fewer than four departments toward this requirement. For a list of approved courses outside the liberal arts and sciences, see an advisor or the Office of Student Affairs. Up to four junior- or senior-level courses in a second major will count

*This course appears on more than one list or in more than one section. However, this course may be used to satisfy only one requirement unless specifically stated.

**These courses may be used for Comparative World Cultures and one other requirement if they appear on the Arts and Humanities or the Social Sciences lists (see above).

toward this requirement. Three courses at the 300 or 400 level in a structured minor, including the business structured minor, can also be counted. The Junior/Senior Integrator course can be used to satisfy one of the Area III requirements.

Major Requirements

The requirements for each major in the School of Liberal Arts are described, along with course descriptions, in the section of this bulletin entitled "Departments and Programs." A minimum of 24 credit hours must be taken in the major subject area. Any course in which the student receives a grade below C (2.0) may not be used to fulfill the major area requirement (a C- does not qualify). However, courses in which the student receives below C, but above an F, will count toward the 122 credit hour total provided that the student does not repeat the course.

Electives

Candidates for a degree in the School of Liberal Arts must complete their general-education requirements and the requirements of their major department. Of the remaining credit hours, known as *electives*, up to 9 credit hours of course work may be elected from any degree-granting university. The remaining electives must come from courses within the School of Liberal Arts, the Herron School of Art, the School of Journalism, the School of Science, or from a list of courses approved by the faculty of the School of Liberal Arts.

If students wish to use courses that do not appear on the list, they must petition the Academic Affairs Committee before taking the course. A current list of approved elective courses is available in Cavanaugh Hall 401.

Second Bachelor's Degree

Normally holders of bachelor's degrees seeking further education are encouraged to enter graduate programs; in certain cases, however, students may prefer to work toward a second bachelor's degree. If admitted by the dean to candidacy for a second degree, students must earn at least 26 additional credit hours in residence and meet the requirements of the School of Liberal Arts and of the department in which they are candidates.

Minors and Certificate Programs

School of Liberal Arts students may complete one or more minors and/or certificate programs. *Minors will not appear on the student's transcript until graduation.* Students in other schools of IUPUI may complete minors in the School of Liberal Arts.

Only courses in which students receive a C (2.0) or better can be applied to the minors and certificates. Specific requirements are described in the section of this bulletin entitled "Departments and Programs."

Courses required for minors and certificates may also be used in fulfilling other requirements, including distribution requirements.

School of Liberal Arts minors are presently offered in the following areas:

Afro-American Studies
 American Studies
 Anthropology
 Business and Professional Writing
 Classical Studies
 Communication Arts
 Cultural Diversity
 Economics
 English
 Film Studies
 French
 Geography
 German Culture
 Germanic Language Skills
 Global Economics
 History
 Japanese Studies
 Legal Studies
 Media Studies
 Medical Humanities and Health Studies
 Medical Sociology
 Organizational Communication
 Philanthropic Studies
 Philosophy
 Political Science
 Religious Studies
 Sociology
 Spanish
 Theatre
 Urban Studies
 Women's Studies
 Writing

The following certificate programs are also available:

International Studies
 Museum Studies
 Paralegal Studies
 Technical Communication
 Translation Studies

Students must receive departmental or program approval for the courses to be used for minors as well as approval for courses not taken at IUPUI that they wish to count in a minor. Special credit may be applied to minor requirements with departmental approval.

Minor in Business

A special minor in business, consisting of 34 credit hours, has been established between the School of Business and the School of Liberal Arts. Specific requirements are described in the "Department of Economics" section of this bulletin.

Other Options

The School of Liberal Arts allows students to complete double majors and double degrees. For further information, see the section in the front of this bulletin.

Associate of Arts

The Associate of Arts (A.A.) is a 62 credit hour program that is essentially the first two years of the Bachelor of Arts program. Students are expected to meet the degree requirements in effect at the date of their admission to the School of Liberal Arts. However, should the requirements change after that date, students have the option of choosing the new requirements with the approval of the Office of Student Affairs.

Students intending to use the A.A. degree as the first two years of a B.A. degree should work with the A.A. counselor, whose office is located in the Office of Student Affairs (Cavanaugh Hall 401), to select courses that will also apply to the B.A. degree.

Requirements

Candidates for the Associate of Arts must satisfy three types of requirements: general-education, distribution, and concentration.

I. General-Education Requirements (62 cr.)

1. 62 credit hours of regular university courses,
2. a minimum grade point average of 2.0 (C),
3. completion of at least 30 credit hours in residence at any Indiana University campus with at least 15 credit hours of the concentration at IUPUI,
4. courses taken under the Pass/Fail option do not apply toward the A.A. degree,
5. by special permission from the Office of Student Affairs, a maximum of 6 credit hours may be taken by correspondence through the Independent Study Division.

II. Distribution Requirements (44 cr.)

All students must complete the following:

First-Year Experience (1-3 cr.)

See B.A. distribution requirements for acceptable courses. (Transfer students with 30 hours are not required to take this course.)

English Composition (6 cr.)

Competency in English composition is required. Each course for this requirement must be completed with a minimum grade of C (2.0). This requirement may be satisfied in the following ways:

1. by completing W131 and W132 (or Honors W140 and W150);
2. by testing out of W131 through the IUPUI English Placement Exam and completing W132;
3. for transfer students, by completing course work equivalent to W131 and W132 at another campus or institution.

Speech Communication R110 (3 cr.)

Students with previously acquired competency in public speaking may be eligible for special credit and exemption from this requirement; contact the chairperson of the Department of Communication Studies in Cavanaugh Hall 309, or call (317) 274-0566.

Foreign Language (10 cr.)

This requirement may be satisfied by completing first-year courses with a passing grade or by completing a second- or third-year course.

Analytic Skills (3 cr.)

See B.A. distribution requirements for acceptable courses.

Natural Sciences (9 cr.)

See B.A. distribution requirements for acceptable courses.

(One course should be a laboratory course. No more than 5 credit hours should be in geography if students plan to complete the B.A. degree.)

Arts and Humanities (6 cr.)

See B.A. distribution requirements for acceptable courses.

Social Sciences (6 cr.)

See B.A. distribution requirements for acceptable courses.

III. Concentration Requirements (18 cr.)

The purpose of the concentration is to provide students with a focus in a single discipline/area, but it should not be confused with a major, which students would take in the third and fourth years if they choose to pursue a Bachelor of Arts.

The student may concentrate in either Option I, the arts and humanities, or Option II, the social and behavioral sciences, explained below.

Courses counted toward the distribution requirements cannot be counted toward the 18 credits in the concentration area.

Option I: Arts and Humanities: Complete both A and B below.

A grade of C or better is required in each course.

- A. Students choose one discipline in the arts and humanities (see the disciplines listed under "Arts and Humanities" in the "Distribution Requirements"—students cannot concentrate in fine arts for the A.A. degree) and take 12 credit hours in that discipline.
- B. Students complete 6 credit hours of course work in other disciplines listed under "Arts and Humanities." These courses may be in a single discipline or in more than one discipline. However, no specific course can be used to satisfy both basic curriculum requirements and the concentration requirements.

Total 62 credit hours.

Option II: Social Sciences: Complete both A and B below.

A grade of C or better is required in each course.

- A. Students choose one discipline in the social sciences (see the disciplines listed under "Social Sciences" in the "Distribution Requirements"—students cannot concentrate in psychology or linguistics for the A.A. degree) and take 12 credit hours in that discipline.
- B. Students complete 6 credit hours of course work in other disciplines listed under "Social Sciences." These courses may be in a single discipline or in more than one discipline.

However, no specific course can be used to satisfy both basic curriculum requirements and the concentration requirements.

Total 62 credit hours.

Graduate Degree Programs

Graduate Programs and Courses in the School of Liberal Arts

Economics, English, history, philanthropy, sociology, and Spanish presently offer master's degrees. In addition, virtually all School of Liberal Arts departments offer graduate courses, including certain 300 and 400 level courses that may be taken for graduate credit in programs in the Indiana University Graduate School or the Indiana University School of Education. Students will not receive graduate credit without the written approval of a graduate advisor and the instructor of the course. Obviously, acceptable performance in the courses is also a condition for receiving graduate credit. In addition, other departments offer graduate course work. See sections on IU graduate programs.

Academic Policies

Program Planning and Counseling

The School of Liberal Arts provides counseling services to assist students in planning their program of study. Students pursuing an Associate of Arts and those who have not yet chosen a major area of study are counseled through the School of Liberal Arts Office of Student Affairs, Cavanaugh Hall 401, (317) 274-3976. Students who have chosen a major are assigned a departmental faculty advisor and should make an appointment with that advisor before each registration period in order to discuss long-term goals as well as specific course work for the upcoming semester. Students are expected to consult with their advisors on a regular basis to ensure ongoing progress toward a degree.

However, students—not their advisors—are responsible for their programs. They should be thoroughly familiar with the general requirements for an SLA degree as well as with those of the department they plan to major in. Students are urged to complete most, if not all, of their general-education requirements during the freshman and sophomore years.

In planning a program, students should refer to both the *Schedule of Classes* and this bulletin. Special attention should be paid to course descriptions and prerequisites. This bulletin identifies prerequisites with a "P," corequisites with a "C," and recommended courses with an "R." Students should not enroll in courses for which they do not have the prerequisites. Instructors may require a student to

drop a class if the student has not fulfilled the prerequisites.

Pass/Fail (P/F) Option

Any School of Liberal Arts undergraduate in good standing (not on probation) may enroll in a maximum of eight *elective courses* to be taken with a grade of P (pass) or F (fail). The Pass/Fail option can be used for a maximum of two courses per year, including summer sessions. The course selected for Pass/Fail must be an elective. It may not be used to satisfy any of the major or school distribution requirements, with the exception of the 300 to 400 level course requirement (Area III).

Final Examinations

Final examinations or other activities in lieu of a final are to be scheduled during finals week at the time indicated in the *Schedule of Classes*.

Students scheduled for three or more finals in a 24-hour period may have their examination schedule adjusted. They should notify the instructors involved by midsemester to determine if they are willing to schedule an alternate examination. Students having problems with an instructor may consult the chair of the department or the Office of Student Affairs, Cavanaugh Hall 401, (317) 274-3976.

Forgiveness Policy

The School of Liberal Arts has adopted a modified version of the IUPUI forgiveness policy for students who have been out of school for three years. For more information about the policy, call (317) 274-3976 or come to Cavanaugh Hall 401.

Petition for Grade Change

Either students or faculty members may petition for a change in course grade.

A student desiring a change of grade shall first discuss the situation with the instructor. If the instructor agrees, and no more than one full semester has elapsed since the course was finished, the faculty member shall file a Grade Change Authorization Form with the Office of the Dean of Student Affairs. If more than one full semester has elapsed, the faculty member still files the Grade Change Authorization Form, but the form may be sent to the SLA Academic Affairs Committee, depending on the reason given for the change of grade.

If the instructor and student do not agree on a changed grade, or if the instructor cannot be located, the student should discuss the matter with the chairperson, director, or coordinator of the department or program in which the course was offered. Following that, the student may petition the SLA Academic Affairs Committee directly, using the Change of Grade Petition Form; these forms are available in the Office of the Dean of Student Affairs. The petition must include (1) a statement of an attempted but unsuccessful interview with the faculty member and chair, and (2) supporting evidence for the petition.

Academic Standing

Academic Probation

Students are placed on academic probation when their cumulative grade point average falls below 2.0 (C), and they remain on probation until the cumulative grade point average is 2.0 (C) or better. Note: Only IUPUI grades will be considered in determining probation and dismissal. Students on probation are encouraged to talk with their faculty advisor or with a counselor in the Office of Student Affairs (Cavanaugh Hall 401), (317) 274-8304, or IUPUI Counseling and Psychological Services, (317) 274-2548, to determine how they may become more successful in their studies. Students on probation must go to their faculty advisors before registering. Students without a faculty advisor should go to the Office of Student Affairs.

Students who have two semesters with a grade point average below 2.0 (C) may be placed on probation at the discretion of the School of Liberal Arts Dean of Students regardless of their cumulative grade point average, since they are failing to make progress toward a degree.

Dismissal

Students will be dismissed from the School of Liberal Arts when they have a cumulative grade point average lower than 2.0 (C) and grade point averages of lower than 2.0 (C) for two semesters. (For part-time students, 12 credit hours or fewer may be considered equivalent to one semester.) Students eligible for dismissal will be notified in writing that they have been dismissed and that they must remain out of school at least one semester. The letter will also inform such students that they will be withdrawn from classes for which they have registered. Once dismissed, students must petition for readmission. (See "Readmission.")

Students who have been dismissed a second time must remain out of school for at least two semesters and petition for readmission. (See "Readmission.")

A third dismissal is final.

Readmission

Any student who has been dismissed from the School of Liberal Arts (or its equivalent on another IU campus) must petition for readmission. A Petition for Readmission form may be obtained from the Office of Student Affairs (Cavanaugh Hall 401).

Petitions for readmission must be filed by the following deadlines:

To enroll for the fall semester	July 15
To enroll for the spring semester	November 15
To enroll for summer session	April 15

Special Opportunities

Self-Acquired Competency

Credit may be granted for learning experiences acquired through means other than normal college course work. Credit is available for course-specific learning or for non-course-specific learning in (1) arts and humanities, and (2) social sciences.

Faculty will evaluate the experience and determine whether credit should be awarded and the amount of credit to be granted. Students may be asked to prepare a portfolio, take examinations, or document their learning in other suitable ways so that the faculty can make such judgments. Only 12 credit hours of self-acquired competency can be applied toward a degree. A brochure providing additional information is available in the Office of Student Affairs.

Special Study Programs

Professional Practice Program

The School of Liberal Arts faculty has approved a Professional Practice Program involving full-time or part-time internships and co-ops related to academic objectives, for the following purposes:

1. to provide interested and qualified SLA students with career training within an academic setting;
2. to assist in the development of appropriate liberal arts skills and capabilities that are applicable in jobs and careers;
3. to facilitate student involvement in work experiences related to the chosen academic curriculum;
4. to facilitate development of occupational alternatives;
5. to facilitate students' self-confidence with regard to the marketability of their liberal arts training;
6. to foster community awareness of SLA-trained students and their capabilities.

Participating departments will work in conjunction with the IUPUI Professional Practice Program in accordance with university guidelines to provide experiences for majors. For further information, students should contact departmental advisors, or the Professional Practice Program, Business/SPEA Building 2010, or call (317) 274-2554.

Extracurricular Activities

A wide variety of activities is available to School of Liberal Arts students, both activities sponsored by the School of Liberal Arts and those open to all students. Students seeking involvement in campuswide activities, such as the IUPUI Student Government,

should contact the Office of Student Life and Diversity Programs of University College, Room 002, or call (317) 274-3931.

Clubs and Organizations

The following organizations are of particular interest to students in the School of Liberal Arts:

SLA Student Council This council, composed of student representatives from each liberal arts department, advises the dean and the School of Liberal Arts on matters of concern to students. It decides how the activity fee will be used in the school, produces a school newsletter, and coordinates Liberal Arts student involvement in campus and community events.

Department Clubs Most departments sponsor clubs and other activities for majors and interested students. Activities include guest lectures and presentations, poetry and fiction readings, visits to museums and exhibits, film viewings, an Oscar party, white-water rafting, a tour of Indiana, production of plays and special performances, debates, international cultural activities, Model United Nations, Model European Union, and more.

Students may find a list of clubs and their activities on the Web at liberalarts.iupui.edu/studentaffairs/extracurricularactivities.html or contact specific departments for more information.

Awards and Scholarships

The School of Liberal Arts recognizes its students' accomplishments at a special Honors Convocation and Celebration of Scholarship held each spring. More detailed information about the following awards and scholarships may be found on the Web at liberalarts.iupui.edu/Scholarships, or by contacting the Office of Student Affairs or the individual department or program.

School-Level Awards and Scholarships

Peter Bassett Barlow Prize This award is for the best paper submitted by a student enrolled in the Department of English master's degree program. The award honors the memory of a man who served the community as a physician; his passionate humanism and great intellect bore witness to the lifelong value of a liberal education.

Arminda B. and Jean C. Bepko Scholarship in Women's Studies This award provides a scholarship for an outstanding student obtaining a minor in women's studies at IUPUI.

Margaret A. Cook Foreign Study Award Each year an award will be made to one or more students majoring in the liberal arts at IUPUI to assist in participating in a study-abroad program sponsored by Indiana University. Priority will be given to junior or senior students majoring in a modern foreign language. Selection will be based on cumulative grade point average, language ability, and the applicants'

plans for continued study of modern foreign languages. The award has been established in honor of Professor Margaret A. Cook, who helped establish the first foreign language programs at IUPUI and who devoted her life to improving our understanding of foreign cultures.

Mary F. Chrisler Scholarship These \$3,000 scholarships encourage collaboration between Liberal Arts faculty and students on academic or course-related research. The purpose is to provide opportunities for students to gain research experience while an undergraduate and thereby strengthen the community of scholarship. Eligible students must have at least a 3.7 GPA in their major.

Preston Eagleson Award The Preston Eagleson Award is presented to an IUPUI student for outstanding achievement in a paper written on the Afro-American experience. The prize honors Preston Eagleson, the first black American to receive an advanced degree from Indiana University.

The James R. East Scholarship This scholarship will be awarded annually to an alumnus or alumna of the Boys and Girls Clubs of Indianapolis.

Faculty Medal for Academic Distinction This award is presented to a graduating senior who, in the judgment of the Faculty Affairs Committee of the School of Liberal Arts, is clearly outstanding in scholastic achievement, interdisciplinary interests, and extracurricular activities.

Marius J. Fauré Family Scholarship The Marius J. Fauré Family Scholarship is awarded each year by the faculty in French to an outstanding student with junior status who has a declared major in French language and literature. The Fauré scholarship honors Mr. and Mrs. Marius J. Fauré, and was established by their daughter Louise Fauré, who was a devoted student of French at IUPUI. Marius Fauré was an immigrant from Sète, France, and was for many years a landscape architect in the Indianapolis area.

Sidney W. Houston Memorial Scholarship An annual scholarship is awarded in honor of Professor Sidney W. Houston, who served from 1963 to 1975 in the departments of English in the Indianapolis regional campuses of both Purdue University and Indiana University. The recipient shall be an outstanding student in the language and literature departments of the Indiana University School of Liberal Arts or in the area of technical communications in the IUPUI Purdue School of Engineering and Technology. The recipient must have completed at least 56 credit hours, but no more than 90, with a minimum cumulative grade point average of 3.5 and must be considered a person of moral responsibility and high professional potential.

Sarah Jamison Keller Scholarship A scholarship for tuition is annually open to a senior majoring in English language or literature at IUPUI who is a resident of the state of Indiana and who has achieved a minimum cumulative grade point average of 3.3 for all undergraduate courses and not less than a 3.5 cumulative average for all courses in English language and literature. The winning candidate will have submitted as part of his or her candidacy a scholarly or critical essay in English on any aspect of English language or literature; the essay is to be

judged by a committee of the English department faculty. The scholarship pays the tuition for no more than 15 credit hours in the fall semester of the student's senior year and is renewable for the following spring semester for no more than 15 credit hours provided the student achieves a minimum cumulative grade point average of 3.7 for all courses in English language and literature taken in the preceding fall semester.

Robert V. Kirch Scholarship An annual scholarship is awarded to an outstanding political science student in honor of Robert V. Kirch, the first chairperson of the IUPUI Department of Political Science and a lifelong student of state and local politics.

Loretta Lunsford Scholarship These \$3,000 scholarships have been established by the family of Loretta Lunsford to assist outstanding Liberal Arts students who demonstrate an interest in educating others and a willingness to volunteer five hours a week in an educational institution. Students must have an overall GPA of 3.4 or higher.

Sam Masarachia Scholars Program Award These full-tuition and fees scholarships are presented to full-time Liberal Arts undergraduate students interested in working in the fields of labor, senior citizens, and community organizations. This program is made possible through the generosity of Sam Masarachia, a representative for the Steelworkers Union in Indiana and an effective advocate for the fields studied in this program.

Museum Studies Award The Museum Studies Certificate program recognizes with its award an outstanding student whose record reflects both academic excellence and a commitment to the museum field.

Rebecca E. Pitts Fiction and Poetry Award An annual competition in fiction writing and poetry is held in honor of Professor Rebecca E. Pitts, who served from 1966 to 1976 in the Department of English. Applicants must be currently enrolled at IUPUI or have been enrolled during the last 18 months before each spring's competition.

Rebecca E. Pitts Scholarship A scholarship is awarded annually to one or more students majoring in the liberal arts at IUPUI who has completed at least 90 credit hours and who plans to seek a graduate degree in a liberal arts discipline. The scholarship is intended to assist an outstanding student in attaining an extraordinary educational experience that will enhance her or his opportunity for advanced study. Applicants must propose uses for the scholarship and describe how the opportunity would make a difference in their respective education; applications will be evaluated by a faculty committee along with information about educational plans, past academic performance, and potential for future achievement. The scholarship has been established in honor of Professor Rebecca E. Pitts, whose lifelong study of literature instilled in many students a desire for learning at the highest levels of excellence.

Clara Margaret Powell Award This award is presented to an undergraduate student with exceptional research skills. The scholarship is intended to support the recipient's research project or to support attendance at a conference.

Mary Louise Rea Short Story Award An annual award is presented in recognition of Professor Mary Louise Rea, who served from 1946 to 1985 in the departments of English in the former Indianapolis regional campus of Purdue University and the Indiana University School of Liberal Arts. The recipient shall be the winner of the annual competition in short story writing. Applicants must be currently enrolled in the following IUPUI creative writing courses or have been enrolled during the preceding 18 months before each spring's competition: W103, W203, W301, W401, and W411.

Frances Dodson Rhome Scholarship This scholarship goes to support a student excelling in women's studies or English. It was established through gifts honoring Professor Frances Dodson Rhome.

John M. Riteris Award This scholarship is awarded annually to a philosophy student who demonstrates a commitment to the study of philosophy and the potential for high quality work in the discipline. The recipient is selected by the faculty of the Department of Philosophy.

Ray Russo Faculty/Student Technology Scholarship This scholarship is awarded to students who work with faculty on new teaching technologies. Recipients are selected based on faculty nominations. The scholarship was established in memory of Professor Ray Russo.

Thelander Memorial Prize The Thelander Memorial Prize is awarded to an IUPUI student for superior achievement in a paper on a historical subject. The prize is presented by the Department of History faculty in memory of a former member of that department, Theodore Thelander Jr.

SLA Student Council Outstanding Awards

Outstanding Advisor Award The SLA Student Council, in recognition of the role of advisors in enhancing students' growth, has created an award to be given to an outstanding advisor in SLA. Any student may nominate an advisor; the final decision will be made by a subcommittee of the council.

Outstanding Club Advisor The SLA Student Council, in recognition of the importance of extracurricular activities related to the majors or minors, presents an award to the faculty member who has gone out of the way to assist in strengthening an SLA club.

Departmental/Program Secretary Award The SLA Student council, in recognition of the critical role of departmental secretaries in providing information, advice, and sympathy—lifelines for students majoring in liberal arts—has created a special award for them.

Departmental and Program Awards

Afro-American Studies Academic Achievement Award This award is presented by the Afro-American Studies Program to the outstanding graduating senior in the program and to students for demonstrated academic excellence in Afro-American studies.

American Studies Award The Center for American Studies presents an annual award, on the basis of nominations from the faculty, to an upper-division minor in the academic program who has demonstrated excellent abilities in the interdisciplinary study of American culture.

Anthropology Award The Department of Anthropology honors an outstanding departmental major whose academic record reflects both scholastic excellence and intellectual breadth.

Classical Studies Awards

The Arete Award is presented as occasion demands to a senior student with a record of excellence in the field of Classical Studies.

The P. Ovidius Naso Living Myth Prize is awarded annually for the best creative retelling, in any medium, of a Classical Greek or Roman myth by a student in an IUPUI classical mythology course.

Communication Studies Awards

The Academic Achievement Award is presented to the communication studies graduating senior who has demonstrated excellence in the field of communication studies, made outstanding contributions to the department, achieved a superior grade point average, and has the recommendations of the faculty.

Outstanding Research or Creative Project This award is made in recognition of a superior research paper or creative project upon the recommendation of faculty in the Department of Communication Studies. Up to four awards may be given.

The Service Award This award is given to a student, upon recommendation of the faculty in the Department of Communication Studies, in recognition of outstanding service to the department, school, and/or university.

Economics Awards

This award is presented to the senior economics major with the highest cumulative grade point average above 3.4.

Robert Kirk Outstanding New Economics Major Award The Kirk Award is presented annually to an outstanding student in his or her first year as an economics major. The award recognizes Professor Kirk's dedication to students during his 28 years with the department.

The Department of Economics gives a one-year subscription of the *Wall Street Journal* to the outstanding junior economics major.

English Awards

Academic Achievement These awards are presented to students who have demonstrated consistent excellence in their work with language and literature. The Department of English bases its selection on superior scholastic achievement, faculty recommendations, and special contributions to the English program.

Creative Writing Award This honor is presented to the student who has submitted the best work of literary art—fiction or poetry—in a creative writing class during the academic year.

Film Studies Award This award is presented to a student who has done exceptional work in film criticism and research in upper-level film studies courses during the past year.

Hal Tobin Outstanding First-Year Writing Award This award is presented to the student who has submitted the best essay in English W131 or W140 in the preceding calendar year.

The Upper-Division Literature Outstanding Student Award This award recognizes an outstanding achievement by a student in advanced literature courses during the past year.

Linguistics Award This award goes to the student considered by the linguistics faculty of the Department of English to be the most outstanding student of linguistics. Candidates must be students who have taken at least three linguistics courses. Students may nominate themselves for the award.

The Nonfiction Writing Award This award is presented to a declared English major for the best portfolio of nonfiction pieces submitted for anonymous judging by a faculty committee. Papers are judged on effectiveness of expression in a variety of writing genres.

French Award The Margaret A. Cook Award is presented to a student who has demonstrated outstanding achievement in the study of French language and literature. This award is named in honor of Professor Margaret A. Cook, who for 26 years provided the leadership in promoting foreign language study at Indiana University's operations in Indianapolis.

Beaudry Summer Scholarship for French and Francophone Studies This scholarship is awarded to an IUPUI student participating in a summer French language and culture study program in a French-speaking country. This scholarship is made possible through the generosity of James G. Beaudry, Professor Emeritus of French.

Geography Award This award is presented to graduating seniors for demonstrated excellence in geographic studies and a high grade point average.

Geography Alumni New Major Scholarship Established by alumni of the department, this scholarship recognizes the most promising new geography major.

German Award This award is presented to students who have attained a high grade point average and demonstrated academic excellence in the field of German language and literature.

IUPUI Max Kade German-American Study Abroad Scholarship The Max Kade German-American Center at IUPUI awards two scholarships for studying German in approved overseas study programs that will apply to student's degree. Applicants must be working toward a German major, minor, or any other IUPUI degree.

History Award This award is presented to the senior judged to exhibit greatest overall competence and accomplishment in history.

Medical Humanities Student Essay Award This award is presented to an IUPUI student whose writing is judged to be the best on a topic in medical humanities. The award is sponsored by the Center for Law and Health, the John Shaw Billings History of Medicine Society, and the Medical Ethics Program of the IU School of Medicine.

Philosophy Awards An award is presented to the outstanding philosophy major.

Political Science Awards

Academic Achievement Award This award honors the graduating seniors who have achieved an outstanding grade point average and demonstrated the greatest potential for intellectual growth.

The Political Science Intern Award This award recognizes the student in the Applied Politics Internship Program who has demonstrated superior academic accomplishment, diligent service to the intern agency, and promise in career plans.

Religious Studies Award This award is granted to the religious studies student who has displayed consistent excellence in scholarship.

Sociology Awards

The Sociology Award This award is presented to the outstanding student in the department for distinguished achievement in sociology.

The Gnosis Award This award is presented to a student who demonstrates breadth and application of knowledge and has become proficient in the diverse styles of knowledge that personify the achievements of sociology and the goals of a liberal arts education.

Spanish Award This award is presented to the outstanding student in the Spanish program.

Women's Studies Awards

The Senior Award This honor is presented to the senior with a minor in women's studies who has made an outstanding contribution to women's studies.

The Anne Donchin Graduate Essay Award This award is presented to the graduate student who submits the most outstanding essay on a topic in women's studies.

The Dolores Donchin Memorial Service Award This award honors an IUPUI student who has made a substantial contribution to women's studies related service. It is made possible through gifts in memory of Dolores Donchin.

The Indianapolis Women's Rotary Club Scholarship Fund Award This award assists adult returning women students at IUPUI.

The Friends of Women's Studies Scholarship Fund This award aids outstanding students in the women's studies program. Students must have taken a minimum of 6 credit hours in the program.

The Outstanding Essay Award This award is presented to the student who submits the most outstanding essay on a topic in women's studies.

School Resources and Centers

Scholarly Editions

The School of Liberal Arts is home to three scholarly edition projects: the Peirce Edition Project, a contributor to the school's research culture since 1976; and two recent arrivals, the Frederick Douglass Papers Project and the Santayana Edition. This remarkable concentration of major editions establishes IUPUI as a world center for scholarly editing and provides unique opportunities for our students and faculty.

Peirce Edition Project

Charles S. Peirce (1839-1914) was a scientist and philosopher. He is the founder of pragmatism and is considered one of America's greatest thinkers. The primary mission of the Peirce Edition Project is to produce a 30-volume critical edition of Peirce's writings, many never before published. The Peirce Project, supported by the National Endowment for the Humanities, is assisted by an internationally renowned team of advisors and contributors. The resources of the project, which include an extensive photocopy and microform collection of Peirce's manuscripts and the Max H. Fisch Library (a large private collection on classical and American philosophy and on nineteenth- and early twentieth-century American culture), serve a wide community of students and researchers. The Peirce Project, with its resources and its academic staff, gives Indiana University students an opportunity to study modern critical editing and the many historical and philosophical subjects related to Peirce's life and thought.

Frederick Douglass Papers

A runaway slave, Frederick Douglass became a leading orator and author of the abolitionist movement. Modern historians regard Douglass as the most influential African American of the nineteenth century, yet most Americans know little about this great humanitarian. The Frederick Douglass Papers Project already has published a five-volume series of the edited texts of Douglass's principal speeches, interviews, and debates. Editors currently are working on a five-volume series of Douglass's correspondence and a three-volume critical edition of his autobiographical writings. The Frederick Douglass Papers Project started at Yale University and moved to West Virginia University before locating at IUPUI. It is supported by the National Historical Publications and Records Commission and the National Endowment for the Humanities.

The Santayana Edition

George Santayana (1863-1952) is considered a classical American philosopher. Born in Spain, he became one of the widest-read American philosophers of his time. His naturalistic philosophy is explicated in his extensive philosophical works, but he also was a best-selling novelist, poet, and critic of culture and literature. The plan of the Santayana

Edition is to produce a 20-volume critical edition. Each volume is published by MIT Press and simultaneously published in a CD-ROM format. The Santayana Edition, formerly located at Texas A & M University, is the latest arrival at IUPUI and rounds out the profile of the consortium of scholarly editions in the School of Liberal Arts, making the combined editions a real center for the study of American thought and culture. The Santayana Edition is supported by the National Endowment for the Humanities.

Public Opinion Laboratory

The Public Opinion Laboratory (POL) is the interdisciplinary survey research center at IUPUI that provides data-gathering and data-analysis services to a wide variety of private, governmental, and university organizations. It is a research center of the School of Liberal Arts but serves clients as diverse as the School of Medicine, other universities, local and national businesses, local and national media, municipal and state agencies, and the Indiana University system.

All employees are students, who gain experience in all aspects of survey research, including face-to-face, telephone, and mail surveys. The POL also conducts focus groups. The POL has a fully operational computer-assisted telephone interviewing (CATI) system with 20 stations. The POL gives students the opportunity to participate in ongoing survey research in a variety of topics, including political behavior, consumer behavior, media impact, and evaluation of programs such as medical delivery and company personnel policies.

Visit the POL's Web site at polecat.iupui.edu/pol.

Sussman Research Library

The Sussman Research Library, established through a contribution of the books, journals, and papers of Marvin B. Sussman, an internationally known family sociologist, is located in Cavanaugh Hall 316. The library contains an extensive collection of family science and sociology books and journals with emphasis on population/demography, aging, family violence, sexuality, medical/health, law, history, race/ethnicity, and deviance. The library is available to students, staff, and faculty for research use. Materials do not circulate.

Departments and Programs

Afro-American Studies

Director Associate Professor Monroe Little, *History*

Professors Richard Fredland, *Political Science*; Missy Kubitschek, *English*; John McKivigan, *History*; Joseph T. Taylor (Emeritus), *Sociology*

Associate Professors Robert Aponte, *Sociology*; Monroe Little, *History*; Obioma Nnaemeka, *French/Women's Studies*

Assistant Professors Jovier Evans, *Psychology*; Didier Gondola, *History*; Una Okonkwo Osili, *Economics*

Adjunct Professors Alvin Bynum (Emeritus), *Sociology*; William Taylor; Addisu Tolesa, *Folklore*

Afro-American studies encompasses the scholarly exploration of African and African American life and culture from an interdisciplinary perspective. Courses in Afro-American studies are offered in many departments of the School of Liberal Arts.

Minor in Afro-American Studies

The minor in Afro-American studies has four distinct, yet interrelated, objectives: first, to provide instruction in a wide range of empirical research and scholarship related to the life and culture of African Americans; second, to provide an additional academic base of students who wish to pursue graduate or professional training in the arts and humanities, the behavioral and social sciences, law, medicine, education, and public or business administration; third, to provide information that will be helpful to students in occupations that devote increased attention to the concerns of African Americans, such as community development, paralegal training, probation work, journalism, archival and library work, telecommunications, historic preservation, elementary and secondary teaching, counseling, and marketing; and finally, to prepare students to live successfully and responsibly in a multiracial, multiethnic, and multicultural world.

Requirements The minor in Afro-American studies requires 15 credit hours, distributed as follows:

Courses

Required Courses (9 cr.)

A150 Survey of the Culture of Black Americans (3 cr.) An introduction to the life and experience of Africans in the United States utilizing resources from history, literature, and the social sciences.

HIST A364 History of Black Americans (3 cr.) A survey of the historical origins and development of the African community in the United States. Topics include kingdoms of ancient Africa, the Atlantic slave trade, New World slave systems, antebellum free African American protest, the Civil War and Reconstruction, nationalism and Pan-Africanism, the Harlem Renaissance, and the Civil Rights and Black Liberation movements of the 1960s.

A402 Seminar in Afro-American Studies (3 cr.)

P: junior standing, with 9 credit hours in Afro-American studies, or permission of the program director. Advanced seminar devoted to discussion and analysis of the political, social, and economic status and prospects of the African American community.

Elective Courses (6 cr.)

Students may elect up to 6 credit hours from the following courses offered by the Afro-American Studies Program or SLA departments listed.

Program Electives:

A202 The West and the African Diaspora (3 cr.)

An introduction to Western Europe's and America's perception of Africa and Africans. Emphasis is on the image of Africans and their New World descendants, as constructed by European and American intellectuals.

A303 Topics in Afro-American Studies

(1-3 cr.) Study of selected topics or issues in Afro-American studies occasionally, but not always, coordinated with symposia and/or conferences sponsored by the Afro-American Studies Program.

A352 Afro-American Art II: Afro-American Artists (3 cr.) A survey of the artistic traditions of the Africans in the New World, from the period of slavery in North and South America through contemporary and expatriate African American artists.

A495 Individual Readings in Afro-American Studies (1-3 cr.)

By arrangement with instructor. Investigation of topics of special interest to students that are not covered in the regular program curriculum or that students wish to pursue in greater detail. May be repeated once for credit.

Department Electives:

Anthropology A337 African American Health Care
Anthropology E300 African American Culture
Arabic A131-A132 Beginning Arabic I and II
English G310 Social Speech Patterns
English L370 Black American Writing
English L406 Topics in African American Literature
Folklore F394 Afro-American Folklore
Geography G424 Geography of Africa
History E432 History of Africa II
Music M393 History of Jazz
Music M394 Black Music in America
Political Science Y338 African Politics
Sociology R461 Race and Ethnic Relations
Spanish S117-S118 Beginning Spanish I and II
Women's Studies W300 Black Women Writers

American Sign Language/English Interpreting

Director Associate Professor Cynthia B. Roy, *English*

Academic Advising: Cavanaugh Hall 503U, (317) 274-8930

The ASL/English Interpreting program is undergoing revisions. Please check all course information online for current status of the program.

Increasing numbers of Deaf people seek the communicative access that interpreters provide, and this access is mandated by legislators, yet there is a shortage of qualified interpreters nationally and locally. IUPUI's American Sign Language (ASL)/English Interpreting Program is one of very few baccalaureate degree programs available in the country. It prepares students to become capable and flexible participants in the rewarding profession of interpreting.

The ASL/English Interpreting Program introduces students to the theory and practice of interpreting. It provides a strong foundation in language, culture, interpreting, and linguistics. Students develop their abilities in ASL and English, analyze features of ASL and English, discuss ethical issues, and perform guided practice with both simultaneous and consecutive interpreting. The combination of this background with a broad liberal arts education prepares students to enter the profession of interpreting, which serves diverse populations and encompasses a wide range of subjects and settings.

Major in ASL/English Interpreting

The Bachelor of Science degree in ASL/English Interpreting is for students who have achieved fluency in American Sign Language and English and wish to focus on theoretical and applied issues in interpreting. The program is a continuation of the Associate of Arts degree in American Sign Language Studies offered by Vincennes University at its regional campus in Indianapolis at the Indiana School for the Deaf. The program is also open to students who demonstrate equivalent competence in ASL, Deaf culture, and linguistics. Interested students who have not completed the Vincennes University degree should contact the program director at IUPUI.

The major consists of 24 credit hours at IUPUI (see below) and 9 credits from Vincennes University (HDI 206 American Sign Language Grammar, HDI 207 American Deaf Culture, HDI 220 Linguistic Structure of American Sign Language). Required courses at IUPUI are ASL I301, I303, I361, I363, I365, I405, I340, and I342. Enrollment in interpreting classes is limited to students who have been admitted to the program or have received permission from the director.

Certificate Program in American Sign Language/English Interpreting

The certificate program is intended for students who already have a baccalaureate degree and would like to go beyond their original undergraduate major by

completing the course work for the major in ASL/English Interpreting. The course work will be part of their preparation for national certification through the National Registry of Interpreters for the Deaf. We believe that the proposed program is appropriate for a certificate in that there is a clear course of study and body of college-level material to be mastered in preparation for a particular profession. Completion of a four-year degree is crucial preparation for the numerous settings in which interpreters work. Thus, the certificate is designed for students who have already completed a baccalaureate degree and do not wish to work toward a second undergraduate degree.

The certificate program would include 24 hours of course work. To earn the certificate, students would be required to complete the following courses with a grade of C or better:

- ASL I301 Introduction to Interpreting Theory and History (3 cr.)
- ASL I303 Interpreter Ethics and Responsibilities (3 cr.)
- ASL L340 Contrastive Analysis in ASL and English (3 cr.)
- ASL L342 Discourse Analysis and Sociolinguistics for Interpreters (3 cr.)
- ASL I361 ASL/English Interpreting I (3 cr.)
- ASL I363 ASL/English Interpreting II (3 cr.)
- ASL I365 ASL/English Interpreting III (3 cr.)
- ASL I405 Practicum (3cr.)

Undergraduate Courses

I301 Introduction to Interpreting Theory and History (3 cr.) Provides an overview of the field of ASL/English interpreting. Emphasis is on exploring a progression of philosophical frames in the development of the profession; exploring models of the interpreting process; and identifying requisite responsibilities, skills, and aptitudes for interpreters.

I303 Interpreter Ethics and Responsibilities (3 cr.) Focuses on ethical decision-making practices in the interpreting profession. Codes of ethical conduct from other professions will be analyzed and compared to codes within the interpreting profession. Role playing will be used to allow students to learn about their own ethics and morals with regard to interpreting.

I361 ASL/English Interpreting I (3 cr.) Covers both the principles and skill development of ASL-to-English interpreting. Special emphasis is placed on interpreting ASL texts into equivalent English texts. The course will focus on the development of proficiency in consecutive interpreting and simultaneous interpreting.

I363 ASL/English Interpreting II (3 cr.) Focuses on English-to-ASL interpreting. Emphasis is placed on interpreting English texts into equivalent ASL texts. This course will continue the development of proficiency in consecutive interpreting and simultaneous interpreting.

I365 ASL/English Interpreting III (3 cr.) Focuses on English-to-ASL interpreting and ASL-to-English interpreting. It will continue the development of proficiency in simultaneous interpreting.

I405 Practicum (3 cr.) An extensive practicum experience. Students will be placed at two or more sites to experience several interpreting settings during the 15-week course. Students will be required to maintain a journal of their experiences and to meet with onsite practicum supervisors and program faculty regularly throughout the semester.

L340 Contrastive Analysis in ASL and English (3 cr.) Involves the contrastive study of the major linguistic features of ASL and English. This study includes an exploration of the similarities and differences in phonology, morphology, syntax, and semantics. It will also contrast some major features of American Deaf culture with other world cultures by exploring values, beliefs, and norms.

L342 Discourse Analysis and Sociolinguistics for Interpreters (3 cr.) In this course, students will become acquainted with the analysis of signed and spoken language discourse and sociolinguistic theory with an emphasis on applications to signed languages and interpretation. Topics covered include conversation structure, pragmatics, discourse models, diglossia, language contact, language attitudes, language policy, bilingualism, and pidgins and creoles.

A117-A118-A119 Beginning American Sign Language I-II-III (3-3-4 cr.) Introductory language sequence of courses designed for students with no prior exposure to American Sign Language. Emphasis on developing basic conversational skills as well as awareness of Deaf culture. Credit not given for A117-A118-A119 and A131-A132.

A131-A132 Intensive Beginning American Sign Language I-II (5-5 cr.) Intensive introductory language sequence of courses. Recommended for students with prior experience in American Sign Language or for prospective majors in Interpreting. Emphasis on developing basic conversational skills as well as awareness of Deaf culture. Credit not given for A117-A118-A119 and A131-A132.

American Studies

Director Professor Rowland A. Sherrill, *Religious Studies*

Professors David Bodenhamer, *History*; Jonathan Eller, *English*; Carol Brooks Gardner, *Sociology*; Nathan Houser, *Philosophy*; Christian Kloesel, *English*; Missy Dehn Kubitschek, *English*; John R. McKivigan, *History*; Herman J. Saatkamp Jr., *Philosophy*; Rowland A. Sherrill, *Religious Studies*

Associate Professors Karen R. Johnson, *English*; Samuel A. Roberson, *Herron*; Jane Schultz, *English*; Marianne Wokeck, *History*

Assistant Professors Annie G. Coleman, *History*; Thomas Marvin, *English*; Nancy Robertson, *History*

Program of the Center for American Studies

The field of American studies operates on the principle that the sum of culture is more than its separate parts. It works across a broad spectrum of disciplines to offer integrating perspectives on American experience, thought, and expression. In this respect, American studies is decidedly interdisciplinary in its approaches, but at the same time it is very much a field to itself, generating its own lines of inquiry concerning the American cultural mosaic.

Minor in American Studies

The minor in American studies offers its students the opportunity to understand the American experience in a broader context than is usually possible through the study of a single discipline. More specifically, it provides students with courses that focus on matters that have been traditionally at issue in the study of American civilization and culture. Required are two general courses (A301 and A302) that examine the broad questions of American identity and American community. These will provide underpinnings for the remaining 9 credit hours of course work. A special feature of this program is the senior tutorial, which gives students the opportunity to engage in in-depth research under the guidance of an American studies faculty member.

Students enrolled in the American studies minor program will be required to complete 15 credit hours of upper-level course work, including the senior tutorial, which attempts to synthesize the other courses and the student's particular interests in the field of American studies. As a prerequisite, students must complete History H105 and H106 or provide evidence of knowledge of a general outline of the history of the United States; however, these courses do not count toward minor credit. A student's minor program will be developed in consultation with American studies faculty members and the student's American studies advisor. The student will be required to complete the following program:

1. A301 The Question of American Identity (3 cr.)
2. A302 The Question of American Community (3 cr.)
3. Two additional courses at the 300 or 400 level offered under the American studies rubric or cross listed in American Studies (6 cr.)
4. A499 Senior Tutorial (3 cr.)

Courses

A103 Topics in American Studies (1-3 cr.)

Interdisciplinary consideration of various American studies topics sometimes coordinated with symposia and/or conferences sponsored by the IUPUI Center for American Studies. A103 cannot be counted as credit toward an American studies minor.

A301 The Question of American Identity (3 cr.)

Is American culture unified or does it consist of a potpourri of more or less distinct cultures? Beginning with the 1600s but emphasizing the nineteenth and twentieth centuries, this course explores classic texts in American culture, seeking to locate the terms of American unity in the midst of obvious diversity.

A302 The Question of American Community (3 cr.)

What are the varieties and forms of American social life? This course will explore the manner in which Americans, from Puritan times through the later decades of the twentieth century, have structured and experienced social life in rural, urban, and suburban settings.

A303 Topics in American Studies (1-3 cr.)

Interdisciplinary consideration of various American studies topics.

A304 The Transformation of America 1960-1980 (3 cr.)

America in the years from John F. Kennedy to Ronald Reagan. An examination of such topics as the myth of Camelot, the civil rights movement and the subsequent black uprising, Vietnam and its aftermath, the rise of counterculture, campus unrest and the student movement, the road to Watergate and the retreat into narcissism, the pervasive influence of television, and the rise of neo-conservatism. Also, consideration of the literature: modernism and fabulism in fiction, social and cultural criticism, and the new journalism in nonfiction.

A499 Senior Tutorial in American Studies (3 cr.)

This course provides students with the opportunity to pursue particular interests in American studies on topics of their choosing and to work in a tutorial relationship with an American studies faculty member. In this course of directed study, students will be required to produce research projects for filing in the library.

Anthropology

Chair Professor Richard Ward

Professors Ken Barger, Susan Sutton, Richard Ward

Associate Professors Jeanette Dickerson-Putman, Barbara Jackson

Assistant Professors Elizabeth Kryder-Reid, Paul Mullins, Gina Sanchez

Adjunct Professors Associate Professor Janis Beckstrand, *Nursing*; Professor David Burr, *Anatomy*; Professor Della Cook, *Anthropology, IU Bloomington*; Associate Professor Eleanor Donnelly, *Nursing*; Professor Paul Jamison, *Anthropology, IU Bloomington*; Carol Jolles, *University of Washington*; Assistant Professor James R. Jones, *Indiana Department of Natural Resources*; Robert Kasberg, *Assistant Dean, University Graduate School*; Professor Robert Meier, *Anthropology, IU Bloomington*; Elizabeth Moore, *Visiting Assistant Scientist, IU School of Dentistry*; Associate Professor Susan Shepherd, *English*; April Sievert, *Research Associate, IU Bloomington*; Baldemar Velasquez, *Farm Labor Organizing Committee*

Academic Advising: Cavanaugh Hall 413, (317) 274-8207

Anthropology is the study of human cultural and biological diversity across a broad span of time and space. It includes the archaeological study of past societies; ethnographic investigations of contemporary cultures around the world; research into human evolution and genetic variation; and analyses concerning the development, structure, and social use of language.

The IUPUI anthropology program emphasizes the application of anthropological concepts and methods to current issues and concerns. Applied anthropology investigates such topics as how socioeconomic change affects migrant farmworkers, how African American health concepts are related to rates of hypertension, how museum programs can best represent Native Americans, how archaeologists can uncover and preserve the cultural heritage of a group, and how studies of human genetic variation can be used in the detection and counseling of children with genetic disorders.

The anthropology curriculum contributes to student growth in three ways: by broadening their understanding of the human experience across ethnic groups and across time, by encouraging learning and inquiry skills, and by providing practical learning experiences such as community internships and guided student research projects. A major in anthropology can lead to careers in a wide variety of social service organizations, health fields, museums, and businesses. A minor in anthropology can provide a base in human diversity to complement such careers as nursing, social work, education, and urban planning.

The anthropology program has laboratories that assist faculty and students with research in archaeology, biological anthropology, and ethnography. Frequent summer field courses provide further opportunities for students to gain cross-cultural and research experience in settings as diverse as Greece, Belize,

Mexico, and archaeological sites in Indiana. The Anthropology Club serves as a forum for students to exchange ideas and hear public speakers.

Major in Anthropology

A major in anthropology provides training in several areas: an overview of anthropological inquiry, an awareness of the wide variety of human cultures, intensive investigation of selected conceptual topics, research skills, and the application of anthropology outside the university setting. Requirements for a major include a minimum grade of C in 36 credit hours of anthropology courses. A student's particular program is selected in consultation with an anthropology faculty advisor from the following:

9 credit hours in overview of anthropology: A103 (or A303), A104 (or A304), and A360.

3 credit hours in internship in applied anthropology: A494.

3 credit hours in issues and methods in applied anthropology: selected from A201, A337, A361, A403, A485, E391.

6 credit hours in comparative human experience, selected from E300, E310, E316, E320, E326, E335, E336, E356.

6 credit hours in conceptual topics, selected from A337, A401, A403, A454, B370, B371, B480, E380, E391, E402, E411, E421, E455, E457, E470, L300, L401, P220.

3 credit hours in research methodology, selected from E404, P402.

6 credit hours in anthropology electives, selected from any course offered by the department.

The variable title courses A395, A460, A485, and A495 may sometimes be used to fulfill the above requirements if departmental approval is obtained.

Upper-level anthropology courses should be distributed to include at least 3 credits in three of the areas of archaeology, cultural anthropology, bioanthropology, and linguistics. A494 (Practicum) serves as a capstone experience for anthropology majors.

The major in anthropology is currently under revision. Current information may be obtained from the departmental chair or secretary and by consulting the departmental Web site.

Minor in Anthropology

A minor in anthropology provides basic training in three areas: an overview of anthropological inquiry, understanding of ethnic and cultural behavior, and understanding of a selected conceptual area in anthropology. Requirements for a minor include a minimum grade of C in 15 credit hours of anthropology courses, selected in consultation with an anthropology faculty advisor from the following:

6 credit hours in introductory anthropology: A103 (or A303) and A104 (or A304).

3 credit hours in comparative human experience: E300, E310, E316, E320, E326, E335, E336, E356.

3 credit hours in conceptual topics: A201, A360, A361, A401, B371, B466, B480, E380, E391, E402, E411, E421, E455, E457, E470, L300, L401, P220.

3 credit hours in an anthropology elective, selected from 300 level and 400 level courses offered by the department.

The variable title courses A395, A460, A485, and A495 may sometimes be used to fulfill the above requirements, if departmental approval is obtained.

As the anthropology program continues to develop, requirements for a minor will be periodically updated. Current information may be obtained from the departmental chairperson or secretary.

Minor in Cultural Diversity

This minor is oriented toward two groups of students. First, it provides a comparative framework for liberal arts and science majors for whom the study of culture, race, ethnicity, or gender overlaps their own disciplines. Second, it serves students in such fields as education, nursing, social work, business, medicine, public affairs, and law who wish to build a multicultural perspective into their professional practice.

Courses for the minor explore the genesis and transformation of racial and ethnic categories; the relationship of culture and biology; processes of acculturation and pluralism; the evolution of scholarly thought on human diversity; and ultimately, how it is that any of us comprehends others.

Requirements for the minor are a minimum grade of C in 15 credit hours of course work as follows:

6 credits hours of introductory anthropology: A103 and A104.

6 credits hours of general courses on diversity, through any two of the following courses: B370, E402, and E457.

3 credit hours of electives chosen in consultation with the minor advisor from a list of approved courses. This list is on file in the departmental office and includes courses from both anthropology and many other disciplines that concern diversity in general, or specific gender, ethnic, cultural, or other such groups.

Introductory Courses

A103 Human Origins and Prehistory (3 cr.) A survey of human biological and cultural evolution from early pre-Pleistocene hominids through the development of urbanized state societies, with the goal of better understanding our human heritage. (Not open to students who have had A303.)

A104 Culture and Society (3 cr.) A survey of cultural and social processes that influence human behavior, with comparative examples from different ethnic groups around the world, with the goal of better understanding the broad range of human behavioral potentials and those influences that shape the different expressions of these potentials. (Not open to students who have had A304.)

A201 Survey of Applied Anthropology (3 cr.) P: A103 or A303 and A104 or A304, or authorization of the instructor. A survey of such issues in applied anthropology as cultural resource management, community development, cross-cultural communication, Third World development, museum studies, archaeological ethics, and the impact of

human diversity on health care, education, and social programs.

A303 Evolution and Prehistory (3 cr.) P: junior standing. An advanced survey of human biological and cultural evolution from pre-Pleistocene hominids through the development of urbanized state societies. (Not open to students who have had A103.)

A304 Social and Cultural Behavior (3 cr.) P: junior standing. An advanced survey of cultural and social processes that influence human behavior, with comparative examples from different ethnic groups around the world. (Not open to students who have had A104.)

Advanced Courses

A337 African American Health Care (3 cr.) An anthropological perspective on the study of African American health beliefs and practices. This course examines the major theories for African American health as well as the relevant issues for understanding these health-care practices in delivering health services. Local and national health-care issues will be examined.

A360 The Development of Anthropological Thought (3 cr.) An overview of the major theoretical developments within anthropology, as the discipline has attempted to produce a universal and unified view of human life based on knowledge of evolution and prehistoric and contemporary cultures.

A361 Applied Cultural Change (3 cr.) A survey of major concepts of cultural and social change, and an evaluation of different models of applied change. The course emphasizes both a sound understanding of change and its practical application in developmental change.

A395 Field Experiences in Anthropology (1-3 cr.) P: authorization of the instructor. A supervised field experience in a selected area of anthropology. (May not be repeated for more than 6 credit hours.)

A401 Cultural Resource Management (3 cr.) The concept of cultural resource management as a theoretical and functional tool to effect the conservation and protection of archaeological resources. Law, project review, site registration, and preservation strategies will be addressed.

A454 Human Ecology (3 cr.) A survey of the biological and cultural means by which humans adapt to their environment. This course emphasizes the unique nature of human adaptation, focusing on specific human groups and on the general processes of adaptation.

A460 Topics in Anthropology: (variable title) (1-3 cr.) A conceptual examination of selected topics in the field of anthropology. (May not be repeated for more than 6 credit hours.)

A485 Topics in Applied Anthropology: (variable title) (1-3 cr.) An examination of a selected topic where the concepts, principles, and methods in anthropology are utilized to address a particular community or social issue. (May not be repeated for more than 6 credit hours.)

B370 Human Variation (3 cr.) Variation within and between human populations in morphology, gene frequencies, and behavior. Biological concepts of race, race classification, along with other taxonomic considerations and evolutionary processes acting on humans in the past, present, and future.

B371 The Anthropology of Human Nature (3 cr.) An examination of the foundations of human behavior as viewed from the biocultural and evolutionary perspective of anthropology. This course strives to provide the student with a rational middle ground in the nature/nurture debate by demonstrating that human behavior is innately plastic.

B426 Human Osteology (3 cr.) This course explores the types of information that can be recovered from bones, including age, sex, size, pathology, diet, and demography as well as how this information can be utilized to obtain an integrated picture of an individual. The skills learned are applicable to forensic anthropology, archaeology, human evolution, and anatomy.

B466 The Primates (3 cr.) The study of our closest living relatives—the prosimians, monkeys, and apes—from the perspective of evolutionary and environmental influences on morphology and complex social behavior.

B480 Human Growth and Development (3 cr.) The study of human growth and development from a biocultural perspective including the physical mechanisms, and social, cultural, and environmental factors that lead to normal growth and development throughout the human life cycle. Causal factors, patterns of expression, and methods of assessment are stressed. Also available for graduate credit.

E300 Culture Areas and Ethnic Groups: (variable title) (1-3 cr.) An ethnographic survey of a selected culture area or ethnic group. (May not be repeated for more than 6 credit hours.)

E310 Cultures of Africa (3 cr.) An ethnographic survey of culture areas and societies of sub-Saharan Africa.

E316 Prehistory of North America (3 cr.) This course will introduce students to the cultural variety and complexity of prehistoric native North Americans. The course focuses on the various environmental adaptations, lifeways, social systems, and material culture that have been revealed through archaeological research.

E320 Indians of North America (3 cr.) An ethnographic survey of native North American culture areas and ethnic groups.

E326 Modern Greek Society (3 cr.) This course examines modern Greek life from an anthropological perspective. Recent Greek history, and the changing circumstances of both village and urban dwellers are explored. The complexity of cross-cultural understanding emerges as the various images that outsiders hold of modern Greece are compared to the realities of contemporary life there.

E335 Ancient Civilizations of Mesoamerica (3 cr.) Historical ethnography of the major pre-Columbian civilizations, especially the Aztec, the Maya,

and the Zapotec and Mixtec. Emphasis on the social life, cultural achievements, religion, world view and political systems to illustrate the diversity and richness of Amerindian life before the Spanish conquest.

E336 African American Culture (3 cr.) This course provides an anthropological and comprehensive approach to the study of African American culture. It will focus on the ethnohistory, culture, politics, gender, language, health care, and values of African Americans. A secondary aim of this course is to examine the contemporary issues that affect the African American family.

E356 Cultures of the Pacific (3 cr.) This course examines the varied peoples and adaptations of the three main culture areas in the Pacific region (Micronesia, Polynesia, Melanesia) and explores such topics as male/female relations, sorcery, exchange, colonialism, and economic development.

E380 Urban Anthropology (3 cr.) An examination of urban social organization in cross-cultural perspective, including theoretical perspectives on urbanization, kinship and social networks, economic and political factors, and cultural pluralism.

E384 The African Diaspora (3 cr.) This course examines the cultural formation of the African Diaspora in the Americas. The course focuses specifically on the development of African diasporic populations in the Caribbean, Central America, and South America, in comparative perspective. Students will develop a critical understanding of the African Diaspora as a geographical displacement, as an assemblage of cultural groups, and as a process of political identification.

E391 Women in Developing Countries (3 cr.) This course explores the nature of women's roles in developing countries. Particular emphasis is placed on examining how development and cultural change have affected the lives of women.

E402 Gender in Cross-Cultural Perspective (3 cr.) This course considers the meaning and social implications of gender in human society. Cultural definitions of "male" and "female" gender categories as well as associated behavioral and structural differentiation of gender roles will be analyzed using current anthropological concepts and theories.

E403 Women of Color in the U.S. (3 cr.) This course examines the concepts of race, class, and gender as inextricably tied analytical categories, and how they have structured the lives of African American, Latina, Native American, and Asian American women, both U.S. born and immigrant. Themes of oppression, identities, and activism figure prominently throughout the course.

E404 Field Methods in Ethnography (3 cr.) Introduction to the methods and techniques anthropologists use to study other peoples. Preparation of a research proposal, interviewing, and the use of life histories and case studies.

E411 Wealth, Exchange, and Power in Anthropological Perspective (3 cr.) This course examines cultural patterns of production, exchange, and consumption, with an emphasis on non-Western societies and how these factors influence economic development in the Third World.

E421 The Anthropology of Aging (3 cr.) This course explores age and the aging process cross-culturally by looking at the specific cultural context in which individuals age and by analyzing similarities and differences across cultures.

E445 Medical Anthropology (3 cr.) A cross-cultural examination of human biocultural adaptation in health and disease, including biocultural epidemiology; ethnomedical systems in the prevention, diagnosis, and treatment of disease; and sociocultural change and health. Also available for graduate credit.

E455 Anthropology of Religion (3 cr.) Critical evaluation of current approaches to the analysis of religious myth, ritual, and symbolism. Problems in understanding religious beliefs of other cultures. Modern development of anthropology of religion.

E457 Ethnic Identity (3 cr.) A cross-cultural analysis of the nature of ethnic groups and identity, including the effects of colonialism and nationalism on ethnic groups, stereotyping groups, ethnic symbols and styles, and persistence and change in ethnicity.

E470 Psychological Anthropology (3 cr.) A cross-cultural examination of human behavior in its ethnic context, including selected topics such as socialization, sex roles, altered states of consciousness, and personality and sociocultural change.

L300 Language and Culture (3 cr.) This course explores the relationships between language and culture, focusing on research methodology and surveying various theoretical frameworks. Topics to be discussed include linguistic relativity (the Sapir-Whorf Hypothesis), ethnographies of communication, interview techniques, and methods of data collection and analysis.

L401 Language, Power, and Gender (3 cr.) This course investigates sociocultural aspects of language use, focusing on the interaction of power and gender with language. Topics include differences in men's and women's language use, discourse patterns and power relationships, and identity and language use. To what extent does the language we speak sustain the dominance of certain groups in our society?

P220 The Rise of Civilization (3 cr.) Covers the development of complex societies in several regions of the world. The material is approached from an anthropological perspective, with emphasis on archaeological methods of data collection and analysis. Early civilizations in Iraq, India, Egypt, Rome, China, Peru, and Central America will be discussed.

P402 Archaeological Method and Theory (3 cr.) This class is concerned with how archaeologists know what they know about the past. Methods of data collection are reviewed and theoretical interpretations are discussed. The focus of the course is on evaluation of archaeological research and explanation, with special emphasis on critical thinking.

Independent Study Courses

A494 Practicum in Applied Anthropology (1-4 cr.) P: authorization of the instructor. An arranged experience in applied anthropology,

appropriate to individual career goals. The student will work with an approved community group or organization on a specific project that facilitates the integration of previous course work and experience in a practical application. (May not be repeated for more than 6 credit hours.)

A495 Independent Studies in Anthropology (2-4 cr.) P: authorization of the instructor. A supervised, in-depth examination through individual research on a particular topic selected and conducted by the student in consultation with an anthropology faculty member.

A594 Independent Learning in Applied Anthropology (3 cr.) P: authorization of the instructor. Independent research/training using the anthropological perspective/methods in addressing social issues. The project must be a discrete activity with a concrete product, conducted in conjunction with the student's anthropology advisor and a member of the organization where she or he will be located. (May not be repeated for more than 6 credit hours.)

Graduate Minor in Anthropology and Health

The graduate minor in anthropology and health is an integrated field of 12 credit hours of study designed to supplement the graduate training of students with an interest in careers in the health field. The program has three goals: to provide students a holistic perspective on the anthropology of health, which integrates human biology, ecology, and culture in a systems model of health; to develop students' anthropological inquiry skills in understanding health in human groups; and to develop students' abilities to apply anthropological concepts and skills to health interventions in the areas of their career focus. The graduate minor in anthropology and health will provide students with training that will add greater depth and breadth to their qualifications in their major field. They will be able to use the cross-cultural and biocultural perspectives of anthropology to supplement their primary graduate training to better prepare them for a career in the health fields. This focused training will enable students to use anthropological concepts and skills to identify biocultural factors in the occurrence of disease, to understand ethnic behavior related to illness, and to identify where health programs across social and ethnic lines can be made more effective.

Course Requirements

Twelve credit hours approved for the minor in anthropology and health with a grade point average of at least 3.25, including E445, A594, one course selected from B521, B523, B525, E404, E606, and L605, and one elective.

Courses

E445 Medical Anthropology (3 cr.) A cross-cultural examination of human biocultural adaptation in health and disease, including biocultural epidemiology, ethnomedical systems in the presentation, diagnosis, and treatment of disease, and sociocultural change and health.

A594 Independent Learning in Applied Anthropology (3 cr.) P: authorization of instructor. Independent research/training using anthropological perspectives/methods in addressing social issues. The project must be a discrete activity with a concrete

product, conducted in conjunction with the student's anthropology advisor and member of the organization where she or he will be located. (May not be repeated for more than 6 credit hours.)

Research Methods in the Anthropology of Health

B521 Bioanthropology Research Methods (3 cr.)

B523 Anthropometry (3 cr.)

B525 Genetic Methods in Anthropology (3 cr.)

E404 Field Methods in Ethnography (3 cr.)

E606 Research Methods in Cultural Anthropology (3 cr.)

L605 Field Methods in Anthropological Linguistics (3 cr.)

Electives

Electives in the anthropology of health (3 cr.)

Electives will be selected from approved anthropology courses offered at IUPUI and IU Bloomington in consultation with the minor advisor.

Folklore

F101 Introduction to Folklore (3 cr.) A view of the main forms and varieties of folklore and folk expression in tales, ballads, gestures, beliefs, games, proverbs, riddles, and traditional arts and crafts. The role of folklore in the life of human beings.

F111 World Folk Music and Culture (3 cr.) The course explores the role of music in human life. It introduces students to ethnomusicology and the cross-cultural study of music, performance, and culture.

F131 Introduction to American Folklore (3 cr.)

Folklore and traditional expressive behavior within the context of American culture. Art and traditional philosophies of folk groups found in America, including ethnic groups, occupational groups, regional groups, religious groups, etc. The function of folklore within the lives of American people.

F312 European Folklore/Folklife/Music (3 cr.)

This course is a comparative survey of the genres of the folklore of Europe, emphasizing especially the study of worldview and folk religion. The interrelationships of the folk cultures of Europe that allow us to speak of "European folklore" will also be examined.

F354 African American Folklore/Folklife/Folk Music (3 cr.)

African American culture in the United States viewed in terms of history and social change. Folklore, folk music, and oral history as means of illuminating African-American culture and history. May be repeated once when topics vary.

F356 Chicano Folklore/Folklife/Folk Music (3 cr.)

The folk traditions of Mexican Americans as a reflection of the historical experience and cultural identity of this people within the United States. Mexican heritage, Anglo and black influences, and the blending of these elements into a unique cultural entity. May be repeated once when topics vary.

F360 Indiana Folklore/Folklife/Folk Music (3 cr.)

Survey of folklore, folklife, or folk music of Indiana with particular attention to the persistence into the present of preindustrial culture. Students are encouraged to do fieldwork in the state. May be repeated once when topics vary.

F363 Women's Folklore/Folklife/and Music (3 cr.)

This course identifies key issues in women's folklore and examines the ways in which women have been represented in myths, legends, and folktales, past and present. The various ways in which visions of womanhood inform, reflect, and challenge gender roles will also be analyzed.

Museum Studies

MSTD A403 Introduction to Museum Studies (3 cr.)

This survey of museology introduces students to the history of museums and to debates on the philosophical nature of museums and their roles in society. The course covers the types and definitions of museums, traces the history of museums, discusses contemporary museum practice, and examines current issues in the museum profession.

MSTD A405 Museum Methods (3 cr.) This survey of museum practice introduces students to methods, skills, and resources in three areas of museum work: artifacts, interpretation, and organizational administration, as well as to the ethical ramifications of these methods.

MSTD A408 Museum Internship (1-6 cr.) P:

A403 and A405, or consent of instructor. An arranged learning experience in museum work appropriate to individual career goals focusing on an aspect of museum practice and working with a museum mentor. May be repeated.

MSTD A410 Museum Education (3 cr.)

This survey of museum education introduces students to a variety of professional skills through exercises, projects, museum visitor observation, and in-museum classes. It covers education theory most central to museum practice, the duties of museum educators, and current issues in museum education.

MSTD A412 Exhibit Planning and Design (3 cr.)

This course offers a survey of museum exhibit planning and design through an integration of theory and practice. The class introduces students to exhibit development, including exhibit administration, design, and evaluation, and to a variety of professional skills through hands-on exercises, exhibit critiques, museum observations, and in-museum classes.

MSTD A414 Museums and Technology (3 cr.)

This course surveys the growing use of technology in museums. It examines applications for information management in collections, conservation science, and archives. It examines critically the use of technology in the service of education both in exhibit contexts and in the variety of educational programs and Web-based methods of knowledge dissemination.

Classical Studies

See "Foreign Languages and Cultures."

Communication Studies

Chair John Parrish-Sprowl

Professors Richard K. Curtis (Emeritus), Robert C. Dick, James R. East (Emeritus), John Parrish-Sprowl, Dorothy L. Webb (Emerita), J. Edgar Webb (Emeritus)

Associate Professors David G. Burns (Emeritus), Catherine A. Dobris, Elizabeth M. Goering, Kristine B. Karnick, B. Bruce Wagener (Emeritus), Gail G. Whitchurch, Kim White-Mills

Assistant Professor Stuart M. Schrader

Adjunct Professors Professor Ken Davis, *English*; Nancy Eddy, *Lilly Theatre Children's Museum*; Associate Professor Beverly E. Hill, *Medical Education Resources Program*; Assistant Professor Janet Allen, *Indiana Repertory Theatre*; Assistant Professor Kathleen Zoppi, *Family Medicine*

Lecturers Al Atkins, Jennifer Cochrane, Jan DeWester, Harold Donle, Maureen Minelli, Charles Reyes, Ronald M. Sandwina, Kate Thedwall

Professional Staff Assistant to the Chair, Martha Vaughn

Academic Advising: Cavanaugh Hall 309, (317) 274-0566

Communication Studies is an integral part of the liberal arts. The curriculum focuses on communication theories, methods, and competencies from a variety of contexts: rhetorical symbolism, public address, organizations, family, health, media, and theatre.

The department offers a diverse curriculum for majors, minors, and service courses for other departments and units within the University. Students learn about the communication process inherent in the areas of: interpersonal, group, organizational, public, and media studies. Communication course work assists students in enhancing their critical inquiry, oral performance, media and message design, problem-solving, and relational conversation skills. A foundation is provided for graduate work in various areas of communication studies, humanities, and/or social science and in professional programs such as law, business, health, and social work. Course work also assists those students pursuing career fields that apply communication principles: public relations, marketing, video or film production, corporate media production, training and development, human resources, public affairs, and special events planning.

The department sponsors the biennial Waldo M. and Grace C. Bonderman IUPUI National Youth Theatre Playwriting Workshop and Symposium. Winning playwrights spend a week in residency developing their scripts and are spotlighted at the symposium held at the end of the workshop.

Major in Communication Studies

Requirements

Every major must complete a minimum of 33 credit hours. The following are a list of additional requirements to successfully complete the major:

- Each student must successfully complete the following 3 courses: G100 (Introduction to Communication Studies), C201 (Introduction to Communication Theory), and C299 (Introduction to Communication Research).
- Each student must take 6 hours in cluster one (Oral Performance). At least 3 hours must be at the 300 level or above.
- Each student must take 6 hours in cluster two (Theoretical/Historical Foundations). At least 3 hours must be at the 300 level or above.
- Each student must take 3 hours in cluster three (Research/Capstone Experience).
- At least 15 credit hours in the major must be in courses at the 300 level or above.
- The student must take at least 3 credit hours in each of the four designated prefixes of C, M, R, and T: Communication, including Organizational Communication ("C" courses), Media Studies ("M" courses), Rhetoric and Public Address ("R" courses), and Theatre ("T" courses).
- No more than 12 credit hours may transfer. At least 21 hours must be taken in the Department of Communication Studies at IUPUI.
- The student must earn a C or better in all major course work.
- At least 21 credit hours of the major must be in courses offered solely or cooperatively by the department.

No student may count more than 9 credits of G300 (Independent Study) and G491 (Internship) toward graduation.

The faculty highly recommends that G100, C201, and C299 be taken early in the student's academic career.

Core Courses (These classes are essential; they are the first classes you must take.)

G100 Introduction to Communication Studies
C201 A First Look at Communication Theory
C299 Introduction to Communication Research

Cluster I: Each of the following courses has significant units designed to help the student enhance oral performance skills. Majors will select 6 hours. At least 3 credit hours must be at the 300 level or above.

C104 Voice and Diction	3 cr.
C228 Discussion and Group Methods	3 cr.
C325 Interviewing Principles and Practices	3 cr.
M150 Mass Media and Contemporary Society	3 cr.
R227 Argumentation and Debate	3 cr.
R320 Advanced Public Communication	3 cr.
T133 Acting I	3 cr.
T205 Oral Interpretation	3 cr.

Cluster II: Each of the courses in this cluster is designed to provide students with experiences in theory, history, and/or methodologies appropriate to the discipline. Majors will select 6 hours. At least 3 credit hours must be at the 300 level or above.

C180 Interpersonal Communication (This course may count toward your major or School of Liberal Arts requirements, but NOT both.)	3 cr.
C380 Organizational Communication	3 cr.
G375 Topics in Nonverbal Communication	1-3 cr.
M462 Television Aesthetics and Criticism	3 cr.

R309 Great Speakers: American Public Address	3 cr.
R310 Rhetoric and Public Address	3 cr.
R321 Persuasion	3 cr.
R330 Communication Criticism	3 cr.
T337 History of the Theatre I	3 cr.
T338 History of the Theatre II	3 cr.
T339 Play Directing	3 cr.

Cluster III: These courses are designed to provide students with a capstone experience. Students must take 3 credit hours.

C322 Advanced Interpersonal Communication	3 cr.
C328 Advanced Topics in Small Group Comm.	3 cr.
C392 Health Communication	3 cr.
C482 Intercultural Communication	3 cr.
G499 Research Seminar	3 cr.
M462 Television Aesthetics and Criticism (Prereq: M150, or permission of instructor)	3 cr.
R330 Communication Criticism	3 cr.

Other Cluster III courses might include:

G300 Independent Study
G391 Seminar

(Permission must be granted by your advisor).

Communication Studies Honors Degree Requirements

A list of communication studies courses approved for H-Options is available in the Honors Program office or in the department's office. Other courses may be arranged by departmental approval. Students graduating with departmental honors will receive a certificate and a letter of acknowledgment.

Teacher Certification

Students seeking a certificate for teaching speech and theatre in secondary schools should review requirements found in the School of Education section of this bulletin and seek academic advising from the School of Education.

Minors in Communication Studies

Note: Students selecting any of the minors below must consult with a department academic advisor.

Communication Arts: A generalist minor for anyone wishing an acquaintance with liberal arts from a communication perspective.

Required: G100, plus 12 elected credit hours. The 12 credit hours should be elected in consultation with, or approved by, a departmental academic advisor; the credit hours must be from at least two areas within the department curriculum (areas prefixed C, M, R, T); and, at least 6 credit hours must be from the 300 level or above.

Media Studies: Designed to accommodate students interested in media production and/or media aesthetics. In both options students will gain an understanding and appreciation of media as conveyors of meaning, cultural artifacts, and art forms.

Students wishing to minor in media studies will choose 15 credit hours from one of the two options outlined below. Both options require M150, plus 12 credit hours from one of the two groups, of which 6 credit hours must be at the 300 level or above:

Media Production

M210 Media Message Design	3 cr.
M220 Electronic Graphic Production	3 cr.
M221 Electronic Media Production	3 cr.
M290 Video Production Workshop	1 cr.
M461 Production Problems in Communication Media	1-3 cr.

Media Aesthetics

G391 Seminar	1-3 cr.
M370 History of Television	3 cr.
M373 Film and Video Documentary	3 cr.
M462 Television Aesthetics and Criticism	3 cr.

Up to 6 credit hours from other courses approved by the departmental Media Studies Committee.

Organizational Communication: Provides students with the opportunity to develop knowledge and communication competencies applicable in a wide variety of profit and nonprofit organizations.

Required (15 credit hours): C380 and 12 credit hours elected from C180, C223, C227, C228, R320, R321, C325, C392, C480, and G499. Prerequisite is R110 or equivalent.

Theatre: Provides knowledge and skills for teaching and lays the basis for further study in acting, theatre directing, youth theatre, and playwriting.

Required for General Theatre Minor (15 credit hours): 12 credit hours elected from T130, T133, T337, T338, and T339. Remaining 3 elective credit hours in theatre courses at the 300 level or above.

Required for Youth Theatre Minor (15 credit hours): T130, T133, T336, T437, and T440.

Courses

C104 Voice and Diction (3 cr.) Directed primarily toward the improvement of normal speech patterns, with emphasis on normal production, resonance, and articulation.

C108 Listening (1 cr.) P: reading placement score of at least 80, and placement in W131. Designed to increase listening efficiency by improving comprehension and listening skills.

C180 Introduction to Interpersonal Communication (3 cr.) P: reading placement score of at least 80. The study of human dyadic interaction, including topics such as perception processes, verbal/nonverbal communication, theoretical models of communication, conflict, and interpersonal communication in various relationships. Course covers applications of interpersonal communication theory/research, including communication competence.

C201 Introduction to Communication Theory (3 cr.) A survey of theories in the field of human communication. Consideration is given to theories that explain communication behavior between pairs of people, within groups, in organizations, and in societies.

C223 Business and Professional Communication (3 cr.) P: R110 or equivalent. Preparation and presentation of interviews, speeches, and oral reports appropriate to business and professional organizations; group discussion and parliamentary procedure. This is an intermediate skills course with survey characteristics.

C228 Discussion and Group Methods (3 cr.)

Theory of and practice in effective participation in and leadership of group, committee, conference, and public discussion; application to information-sharing and problem-solving situations.

C299 Introduction to Communication Research (3 cr.) Methodologies and types of data analyses for investigating communication phenomena. Students will acquire knowledge and competencies that will allow them to understand and address the process of communication research and relevant communication research issues.

C322 Advanced Interpersonal Communication (3 cr.) P: C180 or permission of instructor. Covers core components of the study of interpersonal communication: perception, systems, exchange theoretical approaches; methods of research in interpersonal communication; content (topic) areas such as intimate relationships and friendships. Includes applications of interpersonal communication theory/research.

C325 Interviewing Principles and Practices (3 cr.) P: R110 or equivalent. Emphasizes verbal and nonverbal communication in pre-interview background research preparation, interview schedule design, question construction, and post-interview self-analysis in several interviewing contexts. Course includes significant assignments designed to help the student enhance oral performance competencies.

C328 Advanced Topics in Small Group-Communication (3 cr.) P: C228 or permission of instructor. Theories of small group communication processes. Explores group communication across cultures, groups in organizations, group decision making, conflict management in groups, and assessing competence in group communication.

C380 Organizational Communication (3 cr.) The application of communication theory and research to the study of communication in various types of organizations. Explores reciprocal influence between communication and organizational structures and between communication and managerial styles. Discusses communication designs, superior/subordinate communication, conflict, information management, networks; communication vis-à-vis employee motivation, satisfaction, and productivity; and communication effectiveness in organizations.

C392 Health Communication (3 cr.) P: 3 credit hours of communication or consent of instructor. Exploration of the communication competencies needed by health-care professionals. Emphasizes interviewing; verbal and nonverbal skills; group interaction; and intercultural, interprofessional, therapeutic, and organizational communication. Analyzes communication problems encountered in health care and the development of coping strategies.

C393 Family Communication (3 cr.) P: C180 or permission of instructor. Theory/research on the role of communication in creating and maintaining marriages and families. Topics include communication and family life cycles, different family forms, family race/ethnicity, power, and conflict. Covers applications of family communication theory/research.

C394 Communication and Conflict (3 cr.)

Analyzes conflict as a form of interaction. Examines approaches/perspectives to the study of conflict, the nature of power, face saving, and contentious behaviors. Specific contexts include relational, marital, group, and organizational. Special attention to bargaining and mediation.

C401 Speech Communication of Technical Information (3 cr.) P: R110 or equivalent.

Organization and presentation of information of a practical, technical nature. Emphasis is placed on the study, preparation, and use of audiovisual materials. For nonmajors only.

C402 Interview and Discussion for Business and Professions (3 cr.) Principles of communication as related to the information-gathering interview, the employment interview, and problem-solving discussion; practice in using these principles. For nonmajors only.

C481 Current Issues in Organizational Communication (3 cr.) P: C380 or permission of instructor. In-depth exploration of topics and issues at the forefront of research and theory in organizational communication. Topics may include gender issues in organizational communication, sexual harassment, crisis management, organizational culture. Seminar format with research papers and class discussion/presentations.

C482 Intercultural Communication (3 cr.) P: C180 or permission of instructor. Cognitive, affective, and behavioral learning about intercultural and intracultural communication to increase understanding of the centrality of communication in the social, psychological, and environmental aspects of culture.

G100 Introduction to Communication Studies (3 cr.) P: reading placement of at least 80, and placement in W131. Survey course of history, theory, and practice in each of six major areas: Rhetoric and Public Address, Theatre Arts, Interpersonal/Organizational Communication, Small Group Dynamics, Public Communication, and Mass Media Studies. For each of the areas examined, students will apply theory to practice, thereby learning to become more effective communicators.

G125 Topics in Communication Studies (1-3 cr.) Select introductory theory and practice in specialized and/or consolidated areas of communication and theatre not directly covered by current curricular offerings. Topics will vary from one semester to another. A student may register for a total of no more than 6 credit hours under this course number.

G300 Independent Study (1-8 cr.) Research or practical experience in various departmental areas as selected by student prior to registration, outlined in consultation with the instructor, and approved by the department. If a practicum experience, it must represent a minimum of 45 clock hours practical application per credit hour. A student shall take no more than a total of 9 credit hours of G300 and G491.

G375 Topics in Nonverbal Communication (1-3 cr.)

Course examines the influences of nonverbal communication cues: interpersonal dynamics, media, environmental dimensions, and rhetorical strategies. Cross-cultural and gender difference in nonverbal codes will also be explored.

G390 Honors (1-5 cr.) P: junior standing and departmental approval. Individualized readings and/or project work devised by the student; regular meetings with faculty supervisor.

G391 Seminar (1-3 cr.) P: permission of instructor. Topic announced in prior semester; oriented to current topics in communication and theatre; readings, projects, and papers as indicated by the topic and instructor. May be repeated for a total of 8 credit hours.

G400 Health Provider-Consumer

Communication (3 cr.) This course is designed to teach communication skills and practices related to health-care discourse, by examining transactional communication within health-care contexts. Topics covered in this course focus directly upon interpersonal dialogue between health-care providers and patients.

G491 Internship (3-6 cr.) P: permission of instructor; seniors and majors only. Internship in rhetoric and public address, theatre arts, interpersonal/organizational communication, or media studies permitted under the auspices of a qualified cooperating organization. Periodic meetings with faculty advisors and term paper detailing intern's professional activities and reactions. Apply during semester prior to desired internship. Total credit applicable to graduation shall not exceed 9 credit hours of G300 and G491.

G499 Research Seminar (3 cr.) P: upper-division standing or permission of instructor. A survey of the methods used by communication researchers for gathering and interpreting information, emphasizing the relationship between theory and research. The seminar will explore important issues such as ethics and naturalistic vs. laboratory approaches.

M150 Mass Media and Contemporary Society (3 cr.) P: reading placement score of at least 80. A critical overview of the role of electronic mass media in contemporary society. Provides an introduction to such issues as industry structure, organization, and economics; regulation, public interest, and media ethics; impact of programming on individuals; media construction of social institutions; media issues in the global village.

M210 Media Message Design (3 cr.) P: W132. Examines the process of message design in the context of institutional media use. Analyses of media messages and communication theory; employs quantitative and qualitative audience research methods. Semester project involves planning and writing of script for use in organizational/ institutional media context.

M215 Media Literacy (3 cr.) Fundamentals and a general understanding of communication technologies are surveyed and discussed in a non-technical and non-engineering manner. This course

will introduce students to basic terminology and to various types of communication technology systems. It will also help students understand new and traditional communication systems and their theories of operation and application (including advantages and limitations).

M220 Electronic Graphic Production (3 cr.)

Principles of visual aesthetics and critical visual literacy applied to the production of mediated messages. Basic typographic, graphic, and photographic skills are examined and practical techniques in different media are discussed. Several hands-on projects are used to develop individual competencies.

M221 Electronic Media Production (3 cr.)

Principles of visual and aural aesthetics and critical visual literacy applied to the production of mediated messages. Basic animation, video, and audio skills are examined and practical techniques in different media are discussed. Several hands-on projects are used to develop individual competencies.

M290 Video Production Workshop (1 cr.) P or C: M221.

The practical application of video production techniques. In a production center atmosphere, students are instructed in and practice equipment operation and crew responsibilities creating video productions for outside clients. Students may register for more than one section in one semester. May be repeated for a maximum of 3 credit hours.

M370 History of Television (3 cr.)

The development of television as an industry, technology, and cultural commodity from its roots in other forms of popular culture to the present, paying particular attention to the social and aesthetic contexts within which programs have been viewed.

M373 Film and Video Documentary (3 cr.)

P: M150, C190, or permission of instructor. A historical survey of documentary film and video and a consideration of specific problems in documentary theory and practice.

M450 Video Production (3 cr.) (for nonmajors)

Television production principles and practices for students in other disciplines. Emphasis on practical studio experiences with special attention to the roles of the writer, producer, and director. No prior knowledge of media required. May not be counted for credit in the media major emphasis. Lab arranged.

M461 Production Problems in Communication

Media (1-3 cr.) P: permission of instructor. Topic announced during preceding semester. Specialized study and application of advanced production techniques in audio, video, photography, or graphics. Readings, research, papers, and project as indicated by the topic and instructor. May be repeated for different topics.

M462 Television Aesthetics and Criticism

(3 cr.) P: M150 or permission of instructor. Aesthetic and critical approaches to modes of television expression. Aesthetics of picture composition, audiovisual relationships, visual narrative, and program content. Analysis of selected television criticism.

M463 Advanced Graphic Technique (3 cr.)

P: M220 or permission of instructor. Analysis of problems, methods, and technology in graphics. Consideration of advanced techniques in digital image and illustration manipulation including compositing, lighting effects, and different compression formats for video, multimedia, and the World Wide Web.

M464 Advanced Audio Technique (3 cr.)

P: M221 or permission of instructor. Analysis of field and studio recording technique with an emphasis on multitrack production. Electronic editing, mixing and signal processing are considered. Group and individual projects.

M465 Advanced Video Technique (3 cr.)

P: M221 or permission of instructor. Analysis of electronic field production and editing with an emphasis in advanced video editing techniques. Both linear and non-linear editing systems are considered. Individual and/or group projects.

M466 Television Direction (3 cr.)

P: M221, M290, or permission of instructor. Creative management of production elements to translate a program idea into medium requirements. Advanced course in which the experienced student produced substantive programs combining several formats. Emphasis on design and production from first request by client through program distribution.

R110 Fundamentals of Speech Communication

(3 cr.) P: reading placement score of at least 80. Theory and practice of public speaking; training in thought process necessary to organize speech content for informative and persuasive situations; application of language and delivery skills to specific audiences. A minimum of six speaking situations.

R224 Parliamentary Procedure (1 cr.)

P: reading placement of at least 80, and placement in W131. Modern concepts of parliamentary forms in legislative assemblies and business meetings; practice in the use of parliamentary procedures.

R227 Argumentation and Debate (3 cr.)

Analysis, evidence, and argument in logical discourse; study of debate forms; practice argumentative speaking in class, campus, and intercollegiate debate.

R309 Great Speakers: American Public Address

(3 cr.) Course introduces students to historical and contemporary public address. Students will study the speechmaking of notable American speakers. The study will include speeches from a wide range of established genres and will include campaign rhetoric, debates, historical celebrations, lectures, legislative speaking, presidential speaking, public meetings, movement, rhetoric, and sermons.

R310 Rhetoric and Public Address (3 cr.)

P: R110 or equivalent. Development of theory of oral discourse; the influence of public address; historical and current problems in rhetoric of conflict, in freedom of speech, and in propaganda and persuasion.

R320 Advanced Public Communication (3 cr.)

P: R110 or equivalent. Development of a marked degree of skill in preparation and delivery of various types of speeches, with emphasis on depth of research, clarity of organization, application of proof, and felicitous style.

R321 Persuasion (3 cr.) P: R110 or equivalent. Motivational appeals in influencing behavior; psychological factors in speaker-audience relationship; principles and practice of persuasive speaking.

R330 Communication Criticism (3 cr.) P: G100 or R110 and reading placement of at least 80. Course will introduce students to criticism as a method of studying persuasive messages in speeches, fiction, mass media, music, political campaigns, art, and other modes of communication in contemporary culture.

T100 Rehearsal and Performance (3-6 cr.) Emphasizes learning through the preparation and performance of plays and non-dramatic literature adapted for performance. Various approaches may include but are not limited to performance studies, the study and preparation of a short play, and an original play for young audiences. The various steps and processes involved in the preparation and rehearsal will be based on appropriate theoretical concepts. A student may enroll in no more than 6 credits under this course number.

T130 Introduction to Theatre (3 cr.) P: reading placement score of at least 80. An introduction to the study of theatre; the wide range of critical, historical, aesthetic, and practical interests necessary for a well-rounded view; emphasis on theatre as an art form and elements of dramatic construction.

T133 Introduction to Acting (3 cr.) Acting I, a study of the theories and methods of acting, basic techniques, character analysis, interpretation, and projection. Class scenes.

T205 Introduction to Oral Interpretation (3 cr.) P: reading placement score of at least 80. Basic principles and practice in analysis and reading of selections from prose, poetry, and drama. Public presentation of programs.

T305 Advanced Oral Interpretation (3 cr.) P: T205 (C104 suggested). An advanced approach to analysis and oral presentation of literature. Emphasis on group work. Analysis, development, and presentation of readers' theatre or chamber theatre materials.

T333 Acting II (3 cr.) P or C: T133 or permission of instructor. Advanced scene study. Laboratory in body movement and vocal techniques; participation in laboratory theatre.

T336 Children's Theatre (3 cr.) P: junior standing or instructor's approval. Historical development of children's theatre, with emphasis on scripts appropriate to young audiences: designed to assist future teachers, parents, librarians, and others in understanding theatre as an art form for children ages 6-12, and in selecting appropriate theatre experiences for various periods of the child's life.

T337 History of the Theatre I (3 cr.) Significant factors in primary periods of theatre history through the Renaissance and the effect on contemporary theatre; emphasis on trends and developments; review of representative plays of each period to illustrate the theatrical use of dramatic literature.

T338 History of the Theatre II (3 cr.) Continuation of C337. May be taken separately.

T339 Play Directing (3 cr.) P: T130; T133 or permission of the instructor. Introduction to theatre, methodology, and techniques: strong emphasis upon play analysis, actor-director communication, stage compositions. Students will direct scenes.

T430 Theatre Management (3 cr.) P: C130 or C141 or permission of instructor. Theatre Management is based on the concept that theatre is a business and must be operated on sound business principles. Students study the business aspects of operating various types of theatres. The study of the theoretical basis of management is augmented by practical projects.

T431 Playwriting (3 cr.) P: permission of instructor. Introduction to playwriting theories, methodology, and skills; principles of dramatic structure; practice in writing, culminating in a one-act play manuscript; class evaluation and conferences. Credit not given for both T431 and T453 (taught on the Bloomington campus).

T437 Creative Dramatics (3 cr.) Laboratory course in informal dramatics, emphasizing the child rather than the production; includes methods of stimulating the child to imaginative creation of drama with the materials of poetry, stories, choral readings, and music. Available for graduate credit in summer sessions.

T440 The Art and Craft of Puppetry (3 cr.) Theory and practice of puppetry as an art form and as an educational tool. Students will create a wide variety of hand puppets, scripts, and stages as well as master basic techniques of puppet performance. Produced substantive programs combining several formats. Emphasis on design and production from first request by client through program distribution.

Economics

Chair Associate Professor Robert Sandy

Professors Subir Chakrabarti, Robert Harris, Peter Rangazas, Martin Spechler, Richard Steinberg

Associate Professors Mark Bilodeau, David Bivin, Jonathan Burke, Paul Carlin, Partha Deb, Patrick Rooney, Steven Russell, Robert Sandy, Mark Wilhelm

Assistant Professors Gwendolyn Morrison, Una Okonkwo Osili, Anne Royalty, Geoffrey Warner

Adjunct Professors Charalambos Aliprantis, Ann Holmes, Frank Kelly

Academic Advising: Cavanaugh Hall 516, (317) 274-4756

Economics is the social science in which one studies human behavior in consuming, producing, exchanging, and distributing goods and services. It provides a framework for understanding how decisions of individuals affect the national economy. It helps explain how the economy and how politicians' and government regulators' decisions are affected by their own interests.

Major in Economics

The economics major has the option of pursuing a general track or a quantitative track. The general track provides a firm grounding in economic theory and exposure to problems and techniques the student is likely to encounter in a business, nonprofit, or government agency environment. The quantitative track supplements the general track with extensive training in mathematical and statistical techniques required for graduate course work. This track is also recommended for those students who prefer a more quantitative approach to problem solving. Completion of this track fully prepares the student for entrance into the department's Master of Arts in Economics program at IUPUI as well as graduate programs at other universities.

All majors must complete 18 credit hours in economics to include E201, E202, E270, E321, E322, and E406. These courses should be completed by the end of the junior year. Note that E201 is a prerequisite for E202 and E321 and that E202 is a prerequisite for E322. E321 and E322 are prerequisites for E406.

A. General Track

The general track requires an additional six courses, consisting of the following:

1. two courses (6 credit hours) in mathematics, including finite mathematics and calculus (typically M118 and M119). Additional work in mathematics, computer science, and accounting is recommended.
2. three 300 or 400 level electives from economics.

The total number of credit hours is 33 (34 if E335 is taken as an elective).

B. Quantitative Track

The quantitative track requires an additional six courses (or seven courses, depending on the math sequence) consisting of the following:

1. either
 - a. M163 and M164 (10 credit hours), or
 - b. M118, M119, and E335 (10 credit hours).
2. E470.

3. one 300 or 400 level elective (excluding E335 and E470).

The total number of credit hours is 34.

To satisfy the department's residency requirement, at least 12 credit hours of economics must be taken at IUPUI.

A grade of C (2.0) or better must be received in each course required for the major (a C- does not count).

Minor in Economics

A minor in economics is a logical supplement to programs in business, engineering, technology, health services, science, and the social sciences. A knowledge of economic theory, economic institutions, and how economic policy is formed is necessary for students preparing for careers in law, science, government, or any area that uses the scarce resources of our society.

Requirements

The requirements for a minor in economics are as follows:

1. 15 credit hours in economics courses to include E201 and E202 and three 300 or 400 level courses. (E270 may be substituted for one of the 300 to 400 level courses.)
2. Residency requirements: 9 credit hours of the minor must be completed at IUPUI.
3. Grade requirement: The grade in each course submitted for the minor must be C (2.0) or higher.

Minor in Business

Students are required to meet course prerequisites and entrance requirements, which include completion of the following eight courses or equivalents with a minimum GPA of 2.0 to ensure admission into the business integrative core classes.

BUS A100 Basic Accounting Skills
 BUS A201 Introduction to Financial Accounting
 BUS A202 Introduction to Managerial Accounting
 ECON E201 Introduction to Microeconomics
 ECON E202 Introduction to Macroeconomics
 ECON E270 Introduction to Statistical Theory in Economics
 MATH M118 Finite Mathematics
 MATH M119 Brief Survey of Calculus I

In addition, BUS K201 The Computer in Business, or its equivalent, must be completed with a minimum grade of C before starting the integrative core. Business minors are required to take the integrative core, which is 9 credit hours taken together as a single educational unit (BUS F301 Financial Management, M301 Introduction to Marketing Management, P301 Operations Management), and must apply for space in the three core classes. Application periods are January 15 to March 1 for the fall semester and August 15 to October 1 for the spring semester. Applications are available in Business/SPEA Building 3020.

In addition to the 12 required courses listed above, BUS X204 Business Communications (3 cr.), BUS L203 Commercial Law I (3 cr.), and BUS Z302 Managing and Behavior in Organizations (3 cr.) are recommended. As with all courses listed above, the

Kelley School of Business will impose essentially the same standards for students minoring in business who are enrolled in the integrative core (BUS F301, M301, and P301) as for business majors.

The above minor requires 15-18 credit hours outside of business and 16-18 credit hours of business courses to make up the 34 credit hours required for the minor. Students are encouraged to seek academic advising from their major department to ensure that program planning is accurate. Descriptions of these business courses can be found in the Kelley School of Business section of this bulletin.

Master of Arts Degree

The Master of Arts program has a two-fold objective: (1) to provide students with analytical capabilities and research skills for careers in business, government, and the nonprofit sector, and (2) to prepare those who wish to pursue the Ph.D. at another university or Indiana University Bloomington.

Admission Requirements

Applicants should have completed a bachelor's degree from an accredited institution. Ordinarily, applicants should have a minimum grade point average of 3.0 on a 4.0 scale in their undergraduate course work and in their previous economics courses. Before undertaking graduate study in economics, a student should have knowledge of intermediate-level undergraduate economic theory (E321 and E322), statistics (E270), multivariate differential and integral calculus (the IUPUI equivalents are M163 and M164 offered by the mathematics department or E335 Introduction to Mathematical Methods in Economics with a grade of B or better), and finite mathematics (M118). Students with deficiencies in economics and/or mathematics may be admitted on a conditional basis.

The verbal, quantitative, and analytical portions of the Graduate Record Examination (GRE) are required, and applicants are urged to complete the examination by December of the year before admission.

Three letters of recommendation are required. For students with English as a second language, a minimum TOEFL score of 550 is recommended.

Course Requirements

Students must complete a minimum of 30 credit hours of graduate course work, which may include up to 6 credits of thesis. Twelve credit hours are devoted to the following required core courses: E504 Mathematics for Economists, E521 Theory of Prices and Markets, E522 Theory of Income and Employment, and E570 Fundamentals of Statistics and Econometrics. These core courses serve as prerequisites for some of the 500-level field courses. No more than 9 of the remaining 18 credits may be earned in courses numbered below 500. If a thesis is written, it must be defended. If a thesis is not written, there will be a comprehensive written examination with an oral defense in an area of specialization within economics.

Students have the option of replacing the thesis with reading proficiency in a foreign language or with 6 credit hours of course work in the tool skills of mathematics or computer science. Consult the department's graduate study guide for a list of acceptable research-skill courses. Courses taken to

meet the language or tool skill options are not counted toward the 30 credit hours required for the degree.

Grades

The student must receive at least a C (2.0) in each course and must average at least a B (3.0 on a 4.0 scale) for all courses taken.

Undergraduate Courses

Honors Courses

S201 Introduction to Microeconomics: Honors (3 cr.) Designed for students of superior ability. Covers the same core materials as E201.

S202 Introduction to Macroeconomics: Honors (3 cr.) Designed for students of superior ability. Covers the same core materials as E202.

S270 Introduction to Statistical Theory in Economics and Business: Honors (3 cr.) P: Mathematics M118. P or C: Mathematics M119 or M163. Covers the same core materials as E270 but with more involved applications in economics.

Non-Honors Courses

E100 Current Economic Topics (1 cr.) Discussion of socioeconomic issues from applied point of view through investigation and analysis of current topics of interest such as bank regulations, foreign policy, economics of defense, international trade and finance, ethics and economics, economics of crime, and economics of discrimination. Not open to those with previous college-level economics courses.

E101 Survey of Current Economic Issues and Problems (3 cr.) (For nonmajors) Basic economic principles applied to current social issues and problems. Topics covered will typically include inflation, unemployment, wage and price controls, welfare, social security, national debt, health programs, food prices, pollution, crime, mass transit, revenue sharing, multinationals, population, and energy. Not open to those with previous college-level economics courses.

E111-E112 Topics in the Economic History of Western Civilization I-II (3-3 cr.) Selected topics in the economic history of Western civilization, including the growth of the market organization, industrialization, institutional growth and change, imperialism, and labor.

E201 Introduction to Microeconomics (3 cr.) P: sophomore standing. E201 is a general introduction to microeconomic analysis. Discussed are the method of economics, scarcity of resources, the interaction of consumers and businesses in the marketplace in order to determine price, and how the market system places a value on factors of production.

E202 Introduction to Macroeconomics (3 cr.) P: E201. An introduction to macroeconomics that studies the economy as a whole; the levels of output, prices, and employment; how they are measured and how they can be changed; money and banking; international trade; and economic growth.

E270 Introduction to Statistical Theory in Economics (3 cr.) P: MATH M118. Analysis and interpretation of statistical data in business and economics. Discussion of frequency distribution,

measures of central tendency and variability, statistical inference, hypothesis testing, correlation, regression, and time series.

E303 Survey of International Economics (3 cr.)

P: E201-E202. Survey of international economics. Basis for and effects of international trade, commercial policy and effects of trade restrictions, balance of payments and exchange rate adjustment, international monetary systems, and fixed vs. flexible exchange rates. Students who have taken E430 may not enroll in E303 for credit.

E304 Survey of Labor Economics (3 cr.)

P: E201. Economics problems of the wage earner in modern society; structure, policies, and problems of labor organizations; employer and governmental labor relationships.

E305 Money and Banking (3 cr.)

P: E201-E202. Money and banking system of the United States, including problems of money and the price level, proper organization and functioning of commercial banking and the Federal Reserve System, monetary standards, and credit control. Recent monetary and banking trends.

E307 Current Economic Issues (3 cr.)

P: E201 or permission of instructor. Current economic issues, problems, and research methods. Designed to explore in depth an economic issue currently before the public or to examine a particular aspect of the methodology of economics. Examples would be a study of the economic aspects of discrimination, a study of urban economic policy, or a study of simplified models in economics.

E308 Survey of Public Finance (3 cr.)

P: E201-E202. Analysis of government expenditures and revenue sources, taxation and capital formation, public debt and inflation, growth in government spending, and intergovernmental fiscal relations.

E321 Intermediate Microeconomic Theory (3 cr.)

P: E201-E202, Mathematics M119. Theory of demand, theory of production, pricing under different market conditions, allocation and pricing of resources, partial and general equilibrium theory, and welfare economics. Analysis of current economic problems and technology changes in firms and industries.

E322 Intermediate Macroeconomic Theory (3 cr.)

P: E201-E202. Theory of income, employment, and price level. Study of countercyclical and other public policy measures. National income accounting.

E323 Urban Economics (3 cr.)

P: E201-E202. Introduction to basic concepts and techniques of urban economic analysis to facilitate understanding of urban problems, urban growth and structure, poverty, housing, transportation, and public provision of urban services.

E325 Comparative Economic Systems (3 cr.)

P: E201-E202. Essential economic theories and features of economic systems, including private enterprise, authoritarian socialism, and liberal socialism.

E326 Applied Research in Urban Economics (3 cr.)

P: E201-E202 or permission of instructor. Field research in urban economics. Topics to be selected by students, covering such areas as human

resource problems, transportation and housing surveys, demographic shifts, and income distribution issues.

E335 Introduction to Mathematical Methods in Economics (4 cr.)

P: E201-E202, Mathematics M118-M119. Introduction to quantitative techniques used in economics, and instruction in the application of these techniques to the analysis of economics problems.

E337 Economic Development (3 cr.)

P: E201, E202, and junior standing or consent of instructor. Characteristics of economically underdeveloped countries. Obstacles to sustained growth; planning and other policies for stimulating growth; examination of development problems and experience in particular countries.

E355 Monetary Economics (3 cr.)

P: E305 or E322 or equivalents. Supply and demand functions for money in the context of models of the U.S. economy. Formulation of Federal Reserve policy decisions and effects on interest rates, prices, output, and employment. Current problems in monetary policy and theory.

E363 Environmental and Natural Resource Economics (3 cr.)

P: E201-E202. Basic theory and policy of such topics as pollution, resource depletion, environmental risk, and resource conservation. Issues covered include limits to growth, quality of life, and the appropriate roles for the private market and federal control. Credit not given for both E363 and E463.

E380 Law and Economics (3 cr.)

P: E201 or permission of instructor. The application of economic method to legal institutions and legal issues. Examples would be the optimum use of resources to prevent crime, the economic value of a human life, the economic consequences of regulating business, the economics of property rights, torts and contracts.

E385 Economics of Industry (3 cr.)

P: E201 or permission of instructor. A theoretical and empirical analysis of the structure, conduct, and performance of major American industries. Emphasized is the degree of competition in various markets, how markets operate under conditions of competition or monopoly, and competition as a dynamic process over time.

E387 Health Economics (3 cr.)

P: E201. This course applies economic theory to the study of policy issues in health economics. Specific issues include: determinants of demand for medical services and insurance; training and pricing behavior of physicians; pricing behavior and costs of hospitals; market and regulative approaches.

E406 Senior Seminar (3 cr.)

P: E321 and E322 or permission of instructor. Assessment of the current state of economic knowledge and discussion of how economics is applied to study the problems facing modern society.

E408 Undergraduate Readings in Economics (3 cr. maximum)

P: permission of instructor. Individual readings and research.

E410 Selected Topics in U.S. Economic History (3 cr.)

P: E201-E202. Analysis of selected topics, including transportation developments, government

intervention, systems of property rights, slavery, economic growth, income distribution, economic stability, technical change, and others.

E414 Economics of the Nonprofit Sector (3 cr.)

P: E201. The role of nonprofit organizations (universities, churches, hospitals, orchestras, charities, day care, research, nursing homes) in mixed economics. Public policy controversies such as regulation of fundraising, antitrust against universities, "unfair" competition with for-profit firms, and the tax treatment of donations.

E420 History of Economic Thought (3 cr.)

P: E201-E202. Examination of main theoretical developments since the beginning of the systematic study of economics. Theoretical propositions and structures of the earlier writers will be interpreted and evaluated in terms of modern economic analysis.

E430 Introduction to International Economics (3 cr.)

P: E201-E202. Forces determining international trade, finance, and commercial policy under changing world conditions; theory of international trade; structure of world trade; tariff and trade control policies; the balance of payments problem; evolution of international economic institutions; and monetary relations.

E441 Economics of Labor Markets (3 cr.)

P: E201, E321, and E270 or equivalent. Analysis of the functioning of labor markets with theoretical, empirical, and policy applications in determination of employment and wages in the U.S. economy.

E447 Economics of the Labor Market (3 cr.)

P: E201. Analysis of the functioning of the U.S. labor market. Labor force concepts, unemployment, mobility, wages, and current manpower problems and policies. Analysis of wage determination, wage policy, and their interaction with institutional factors.

E450 Business Conditions Analysis and Forecasting (3 cr.)

P: E201-E202. This course examines sources of instability in industrialized economies. Various theories of the business cycle are examined and critiqued. In addition, the empirical determinant of aggregate demand, prices, and interest rates are discussed. Alternative forecasting techniques are considered and the use of these techniques is demonstrated.

E470 Introduction to Econometrics (3 cr.)

P: E270, Mathematics M119. Application of regression analysis to economic and business data. Estimation and hypothesis testing of classical regression model. Heteroscedasticity, collinearity, errors in observation, functional forms, and autoregressive models. Estimation of simultaneous equation models. Credit will not be given for both E470 and E472.

E485 Economic and Social Control of Industry (Antitrust) (3 cr.)

P: E201 or permission of instructor. This course is a study of the economic reasoning behind and consequences of the application of antitrust laws aimed at altering the structure, conduct, and performance of the American economy. Specific legal cases that have been brought under the Sherman Act, the Clayton Act, as amended, and the Federal Trade Commission Act are analyzed.

Graduate Courses

E504 Mathematics for Economists (3 cr.) Topics in mathematics that are particularly useful in the application of microeconomic theory, macroeconomic theory, and econometrics. Topics covered include: matrix algebra, comparative-static analysis, constrained optimization, difference equations in discrete time, game theory, and set theory as applied to general equilibrium analysis.

E513 Special Topics in Economic History (3 cr.) Explicit methodology and economic analysis applied to major issues in American and European economic history.

E514 The Nonprofit Economy and Public Policy (3 cr.) P: E201. The role of nonprofit organizations (universities, churches, hospitals, orchestras, charities, day care, research, nursing homes) in mixed economies. Public policy controversies such as regulation of fundraising, antitrust against universities, “unfair” competition with for-profit firms, and the tax treatment of donations. (This course may not be taken for credit by anyone who has received credit in ECON E414.)

E519 Regional Economics (3 cr.) Regional economics is the study of economic behavior in space. The course examines the internal and interregional determinants of growth and decline of a region from supply and demand perspectives. Public policies to influence these determinants are considered.

E521 Theory of Prices and Markets (3 cr.) P: E504 or consent of the instructor. Pure theory of consumer behavior, competitive exchange, theory of production; resource allocation, Pareto optimum, monopoly and monopsony, imperfect competition, moral hazard, adverse selection, and market signaling.

E522 Theory of Income and Employment I (3 cr.) P: E504 or consent of the instructor. Intensive study of intermediate income theory; emphasis on construction and empirical significance of aggregative economic models of the determination of income, employment, and price level.

E528 Economic Analysis of Health Care (3 cr.) A graduate introduction to health economics. Applications of economic theory and econometric techniques to problems in various areas in health care. Topics include how physicians, institutions, and consumers respond to economic incentives and what policies contribute maximally to efficiency and welfare.

E541 Labor Market Analysis (3 cr.) P: consent of instructor. An analytical approach to the labor market. Theoretical underpinning and statistical testing of issues on demand and supply of labor, household decision making, human capital, contract theories, unionism, minimum wages, and discrimination.

E545 Applied Labor Economics (3 cr.) P: E321 or E470 or equivalents. Discussion of wage rates and working conditions, searches by workers or firms, investment in training, quits and layoffs, shirking, discrimination, the division of household labor, retirement, and implicit contracts. The course also

examines the impact of institutions such as unions and the government on the efficiency of the labor market.

E551 Monetary Theory and Control (3 cr.) P: consent of instructor. Theory of portfolio allocation with specific reference to commercial banking; theory and practice of central bank control instruments and models of Federal Reserve behavior; role of money in determining equilibrium and growth.

E568 Public Finance I (3 cr.) P: E308 and E470. Partial equilibrium, microeconomic analysis of how tax and subsidy policies affect various types of individual and firm behavior. Theoretical models are introduced to assess and develop quantitative studies of fiscal policy. Summaries of the empirical impact of policy will be formed for the purpose of becoming an “input” in the complete general equilibrium analysis conducted in Public Finance II.

E569 Public Finance II (3 cr.) P: E568. Empirical examination of the general equilibrium effects of major tax and subsidy programs, such as personal income taxation, corporate profit taxation, income maintenance, social security, and government provision of education. In addition, proposed reforms to these programs will be analyzed using empirically based simulation models.

E570 Fundamentals of Statistics and Econometrics (3 cr.) Mathematical overview of statistics and econometrics at graduate level. Topics covered include probability and probability distributions, sampling distributions, tests of hypotheses, estimation, simple regression, multiple regression, generalized linear model and its applications, simultaneous equation system.

E574 Applied Econometrics and Forecasting (3 cr.) P: E570. An overview of techniques employed in economic model building, estimation, and usage. Topics covered include single and multi-equation system estimation, limited dependent variable regression techniques, hypothesis testing, policy analysis, and forecasting. Various forecasting techniques are discussed, including smoothing and decomposition methods and time series analysis. A number of projects are assigned throughout the semester in order to give the student hands-on experience with the different techniques.

E581 Topics in Applied Microeconomics I (3 cr.) P: E521. This course is a graduate-level introduction to theoretical and empirical applications in two areas of microeconomics. Applications to problems in the subdiscipline under study will be discussed. From an empirical standpoint, appropriate estimation techniques will also be discussed. Further discussion will consider how the system of firms, institutions, and consumers respond to economic incentives as well as normative issues—in determining which policies will contribute maximally to economic efficiency and social welfare.

E582 Topics in Applied Microeconomics II (3 cr.) P: E521. As in E581, this course will apply theoretical and empirical applications in two areas of microeconomics. Problems from a number of areas will be selected for demonstrating solutions. Theoretical model building and prediction, numerical

model solving, and hypotheses testing empirically with real data will be included in the course.

E583 Introduction to Applied Macroeconomics (3 cr.) P: E522. This course is a graduate-level introduction to theoretical and empirical applications in two areas of macroeconomics. Applications to problems in the subdiscipline under study will be discussed. Application of estimation and calibration techniques appropriate for the problems in the area will be discussed.

E585 Industrial Organization and Control (3 cr.) P: consent of instructor. Analysis of interrelated structure, behavior, and performance in industrial markets and multimarket corporations; multidimensional nature of competitive processes. Public controls. Topics include patterns of oligopoly, vertical integration, entry barriers, “cartelized” coalescence, limit pricing, price discrimination, long-term contracts, capacity expansion and utilization, resource reallocation and innovation.

E600 Research in Economics (cr. arr.)

E808 Thesis (M.A.) (cr. arr.)

English

Chair Professor Christian J. W. Kloesel

Professors Barbara Cambridge, Ulla M. Connor, Kenneth W. Davis, Jonathan R. Eller, Sharon Hamilton, Christian J. W. Kloesel, Missy Dehn Kubitschek, Claude McNeal, William M. Plater, Helen J. Schwartz, Judith Spector (Columbus), William F. Touponce, Richard C. Turner

Associate Professors Dennis Bingham, Frederick J. DiCamilla, Stephen Fox, Susanmarie Harrington, David Hoegberg, Karen R. Johnson, Kim Brian Lovejoy, Cynthia B. Roy, Jane E. Schultz, Susan C. Shepherd, Harriet Wilkins

Assistant Professors Peter Bloom, Karen Kovacic, Thomas Marvin, Robert Rebein, Marjorie Rush-Hovde, Jennifer Thorington Springer, Mary Trotter, Thomas A. Upton

Lecturers David Albin, John Barna, David Beck, Mary Boyd, Aye-Nu Duerksen, Kate Duffy, Julie Freeman, Teresa Hogue, Sally Hornback, Michal Hughes, Terry Kirts, Brian McDonald, James E. Powell, Mary Jo Pride, David Sabol, Mary J. Sauer, Nancy Stahl, Lynne Stallings, J. J. Stenzoski, Scott Weedon, Anne C. Williams, Wanda Worley

Academic Advising: Cavanaugh Hall 502L, (317) 274-2258 or (317) 274-3824. English department faculty advise majors under the coordination of Professor Stephen Fox, Associate Chair for Students, Cavanaugh Hall 502E, (317) 278-2054.

The Department of English offers introductory and advanced instruction in the methods and traditions of literary analysis, writing, and language study. Its programs are in five areas: linguistics, literature, writing, creative writing, and film studies.

The department administers programs in American Sign Language/English Interpreting and English as a Second Language. The Department of English and the Department of Communication Studies are working to create a program in theatre, film, and media arts.

Through its courses and other activities in linguistics, writing, creative writing, film, and literature, the Department of English works to create and sustain evolving communities of learners interested in the contributions of language to what has been called the examined life—a thoughtful, morally aware, and civically and personally responsible existence. Faculty and students aim for excellence in analyzing, understanding, and communicating about language and its beauties.

For more information, visit the English department's Web site: www.iupui.edu/~english/home.html

Contact the department office (274-2258, english@iupui.edu) with messages, questions, and announcements, or to subscribe to the department's email list for announcements and news.

Major in English

The major requires completion of one of the following six concentrations: Creative Writing, Film Studies, Linguistics, Literature, Writing and Literacy, and Individualized Studies. Each concentration requires 33 credit hours in English with a minimum grade of C in each course. All English majors must complete at least 15 hours in English at the 300-400

level. Each concentration (except Individualized Studies) begins with a gateway course that may be used to fill distribution requirements in other concentrations. Therefore, students should feel free to take more than one gateway course before deciding on a concentration. All majors take the capstone course, E450. Any course, unless specified as repeatable for credit, may be used only once to fill requirements within a concentration.

CONCENTRATION IN CREATIVE WRITING

Gateway Course (3 cr.) Choose one:

W206 Introduction to Creative Writing
W207 Introduction to Fiction Writing
W208 Introduction to Poetry Writing

Distribution Courses (9 cr.) One 3-credit course each, at the 200 level or above, in linguistics (including W310 Language and Study of Writing), literature, and writing (excluding W396 Writing Fellows Training Seminar, E398 Internship in English, and creative writing courses)

Workshop Courses (12 cr.) At least 3 credits must be at the 400 level. Choose from the following courses, only one of which may be repeated for credit:

W301 Writing Fiction
W302 Screenwriting
W303 Writing Poetry
W305 Writing Creative Nonfiction
W401 Advanced Fiction Writing
W403 Advanced Poetry Writing

English Electives (6 cr.) One additional 200-400-level literature course and one additional 200-400-level writing (excluding creative writing), linguistics, or film course or E398 Internship in English

Capstone Seminar (3 cr.) E450

CONCENTRATION IN FILM STUDIES

Gateway Course (3 cr.) C292 Introduction to Film Studies

Distribution Courses (9 cr.) One 3-credit course each, at the 200 level or above, in linguistics (including W310 Language and Study of Writing), literature, and writing or creative writing (excluding W260 Film Criticism, W302 Screenwriting, W396 Writing Fellows Training Seminar, and E398 Internship in English)

Film Theory Course (3 cr.) C391 The Film: Theory and Aesthetics

Culture and Film History Courses (6 cr.)

Choose two of the following three courses:
C390 The Film and Society: Topics
C393 History of European and American Films I
C394 History of European and American Films II

Genres and Authorship Courses (6 cr.)

C392 Genre Study in Film
C491 Authorship and Cinema

Film, Writing, and Literature Course (3 cr.)

Choose one:
W260 Film Criticism
W302 Screenwriting
C493 Film Adaptations of Literature

Capstone Seminar (3 cr.) E450

CONCENTRATION IN LINGUISTICS

Gateway Course (3 cr.) G205 Introduction to the English Language

Distribution Courses (9 cr.) One 3-credit course each, at the 200 level or above, in literature, writing (excluding W396 Writing Fellows Training Seminar, E398 Internship in English, and creative writing courses), and either creative writing or film studies

Core Course (3 cr.) G206 Introduction to Grammar

General Linguistics (6 cr.) Choose two of the following general linguistics courses:

G301 History of the English Language
G302 Structure of Modern English
G310 Social Speech Patterns
G432 Second Language Acquisition
Anthropology L300 Language and Culture
Anthropology L401 Language, Power, and Gender

Applied Linguistics (6 cr.) Choose two of the following applied linguistics courses:

W310 Language and Study of Writing
G400 Teaching English for Specific Purposes
G434 TESOL Methods
G441 Materials Preparation

English Elective (3cr.) One additional 200+ level course elective from linguistics, literature, writing, creative writing, or film, or E398 Internship in English

Capstone Course (3 cr.) E450

CONCENTRATION IN LITERATURE

Gateway Course (3 cr.) L202 Literary Interpretation

Distribution Courses (9 cr.) One 3-credit course each, at the 200 level or above, in linguistics (including W310 Language and the Study of Writing, G205 Introduction to the English Language, G206 Introduction to Grammar, or G301 History of the English Language is recommended), writing (excluding W396 Writing Fellows Seminar, E398 Internship in English, and creative writing courses), and either creative writing or film studies

Literary Traditions Courses (6 cr.) Choose one of the following four options:

Surveys of British Literature

L301 Critical and Historical Survey of English Literature I
L302 Critical and Historical Survey of English Literature II

Surveys of American Literature (choose two of the following)

L351 Critical and Historical Study of American Literature I
L352 Critical and Historical Study of American Literature II
L354 Critical and Historical Study of American Literature III

Literary Masterpieces

L213 Literary Masterpieces I
L214 Literary Masterpieces II

Genre Courses (choose two of the following)

L203 Introduction to Drama
L204 Introduction to Fiction
L205 Introduction to Poetry

Diversity Course (3 cr.) Choose one of the following:

L370 Recent Black American Writing
L376 Literature for Adolescents
L378 Studies in Women and Literature
L379 American Ethnic and Minority Literature
L382 Fiction of the Non-Western World
L384 Topics: Comics and American Culture
L385 Science Fiction
L406 Topics in African American Literature
ANTH L401 Language, Power, and Gender
or another course approved by the department chair

Intertextuality Course (3 cr.)

L433 Conversations with Shakespeare

Literature Electives (6 cr.) Two literature courses at the 300-400 level; one must be at the 400 level

Capstone Seminar (3 cr.) E450

CONCENTRATION IN WRITING AND LITERACY

Gateway Course (3 cr.) W210 Literacy and Public Life

Distribution Courses (9 cr.) One 3-credit course each, at the 200-level or above, in linguistics (including W310 Language and the Study of Writing), literature, and either creative writing or film studies

Language (3 cr.) Choose one of the following courses:

G204 Rhetorical Issues in Grammar and Usage
G310 Social Speech Patterns
ANTH L300 Language and Culture
ANTH L401 Language, Power, and Gender
W390 Topics in Writing (as appropriate)

History and Theories of Language (3 cr.)

Choose one of the following courses:

G301 History of the English Language
W310 Language and the Study of Writing
W396 Writing Fellows Seminar
W400 Issues in the Teaching of Writing
W412 Technology and Literacy
Communication Studies R350 Womenspeak: American Feminist Rhetoric
Communication Studies R310 Rhetoric, Society, and Culture
W390 Topics in Writing (as appropriate)

Writing in Different Genres (12 cr. covering at least two areas)

Business and Organizational Writing

W231 Professional Writing Skills
W315 Writing for the Web
W331 Business and Administrative Writing
W365 Theories and Practices of Editing
W390 Topics in Writing (as appropriate)
TCM 320 Written Communication in Science and Industry
TCM 340 Correspondence in Business and Industry
TCM 350 Visual Elements of Technical Documents
E398 Internship in English

Nonfiction Writing

W290 Writing in the Arts and Sciences
W305 Writing Creative Nonfiction
W313 The Art of Fact: Writing Nonfiction Prose
W390 Topics in Writing (as appropriate)

Creative Writing

W301 Writing Fiction
W302 Screenwriting
W303 Writing Poetry
W401 Advanced Fiction Writing
W403 Advanced Poetry Writing

Capstone Seminar (3 cr.) E450

INDIVIDUALIZED CONCENTRATION

An individualized concentration must be a coherent plan, proposed in writing after consultation with an advisor, and approved by the department chair, before more than 18 credits in the concentration have been earned. It must include:

1. At least 33 credits at the 200 level or above, with at least 15 of these credits at the 300-400 level
2. One 3-credit course each, at the 200 level or above, in three of the following four areas: linguistics (including W310 Language and Study of Writing), literature (excluding L490), writing (excluding W396 Writing Fellows Training Seminar, E398 Internship in English, and creative writing courses), and either creative writing or film studies
3. **Capstone Seminar:** E450

Certificate in Technical Communication

The Certificate in Technical Communication is offered by the School of Engineering and Technology in cooperation with the Department of English, the Department of Communication Studies, and the Society for Technical Communication. Students who earn the Certificate in Technical Communication will have demonstrated that they have the core competencies necessary for entry-level positions as technical communicators. They will have demonstrated their ability to gather and translate technical information for a variety of audiences. They will have designed, developed, and edited effective documents using rhetorical principles and current technology.

Any student formally admitted to IUPUI may be a candidate for the certificate. To receive the certificate, students must have a technical specialty (major, minor, or 9 credit hours of course work), successfully complete 18 credit hours of required and selected courses, and present a portfolio of work that is judged professionally competent by representatives of the local chapter of the Society for Technical Communication. Courses taken at other universities may be recognized as the equivalent of the required or selected courses. The Technical Communications coordinator in the School of Engineering and Technology must approve candidates' selection of courses.

Minors in English

The English department offers minors in these areas:

Literature
Writing
Creative Writing
Business and Professional Writing
Linguistics
Film Studies

Students intending to pursue a minor should declare such an intention in a letter to Associate Chair for Students Stephen Fox, and arrange for a conference with a departmental advisor to plan the program of

study and a second conference to establish a rationale for elective courses. As with the major, students need to maintain a 2.0 grade point average for certification of the minor by the Department of English.

Minor in Literature

The minor in literature introduces students to the skills of interpretation and critical thinking and provides some familiarity with British and American literature.

Prerequisite: L115 with a grade of C or above

Requirements: a total of 15 credit hours (five courses)

One course from the following: L202, L203, L204, or L205

One survey of British literature (L301 or L302) and one survey of American literature (L351, L352, or L354)

Two elective courses in literature, at least one of which must be at the 300 or 400 level

Minor in Writing

The minor in writing attracts students interested in nonfiction writing. Through study of the rhetoric and techniques of English expression, the minor increases students' abilities to handle the language logically and creatively.

Prerequisites: W131 and W132 or W231 with grades of C or better.

Students select any 15 credit hours of English courses in writing (courses with a W prefix, W206 and above).

Students need to keep in close touch with an English advisor while choosing appropriate classes.

Minor in Creative Writing

The minor in creative writing will be of particular interest to students who are contemplating careers in writing or the teaching of writing. It is designed to serve, in addition, the needs of those who believe that one good way to study literature is to learn to produce it. Students choose 15 credit hours from the courses listed under Creative Writing in this bulletin and/or the schedule of classes.

Minor in Business and for Professional Writing

The minor in business and for professional writing equips students to function effectively as writers within occupations ranging from business and industry to applied sciences, education, environmental affairs, government, health fields, and law.

This minor represents cooperation among the School of Liberal Arts, the School of Engineering and Technology, the Kelley School of Business, and the School of Journalism. Nine of the required 15 credit hours must be taken in the Department of English, with the remaining 6 credit hours in the school that best serves the student's needs.

Required and Recommended Courses

Prerequisite: W131 with a grade of C or better

Required:

W231, W350, W331 (or TCM 320)

Electives:

Students take one of the following courses: W315, W355, W365, TCM 350, X204

Students take one of the following courses: English W398 (internship), W411 (directed writing); Communication Studies G391 (when offered as Speech Composition); Journalism J200 or J341.

Students should stay in close touch with an English advisor while choosing appropriate courses.

Minor in Linguistics

The minor in linguistics is intended for students who wish to expand their knowledge of language structure and use. Courses provide a background in linguistic theory and practice.

Required: G205

Electives: Twelve credit hours from the following courses:

English G206, G301, G302, G310, W310
Anthropology L300, L401

In consultation with an advisor, advanced students may request permission to take a graduate course in linguistics in partial fulfillment of the requirements for the minor.

Minor in Film Studies

The minor in film studies provides the skills for understanding film in its aesthetic, popular, and ideological dimensions. Students with a minor in film studies will have a knowledge of film history, theory of film, genres and authorship, interpretive approaches to films, and film as a cultural artifact.

The minor in film studies requires 15 credit hours in the following courses:

Comparative Literature C292 Introduction to Film (3 cr.)

A minimum of 12 credit hours of course work must be selected from the following courses:

Comparative Literature and Film
C290, C390, C391, C393-C394, C491, C493, C494;
English W260; *German* G370, G371.

Internship in English

An internship is an on-the-job learning opportunity designed to supplement students' course work with practical, hands-on experience. IUPUI's Department of English offers two general internship opportunities: W398 Internship in Writing and L490 Professional Practices in English.

Interested students must meet eligibility requirements of junior or senior standing, maintain a grade point average of at least 2.5, and furnish writing samples or have successfully completed advanced writing courses. They must register with the Professional Practices Program (PPP) in Business/SPEA Building 2010, (317) 274-3211, and meet with Department of English internship coordinator Professor Ken Davis, (317) 274-0084, kdavis@iupui.edu.

The Department of English also offers W396, an undergraduate tutoring internship in the University Writing Center (for more information, contact Writing Center Coordinator Tere Molinder-Hogue, Cavanaugh Hall 504K, [317] 274-5650 or tmhogue@iupui.edu).

Other Activities

The English Club The department sponsors an English club, which plans programs on topics of interest to English majors, under the sponsorship of a faculty member.

genesis A semiannual literary journal, *genesis* publishes the work of student authors and artists.

The Film Studies Club The Film Studies Club is a group of students interested in film screenings during the fall and spring semesters. Interested students should contact the faculty advisor, Professor Dennis Bingham, (317) 274-9825 or dbingham@iupui.edu.

The Rufus Reiberg Creative Reading Series

Named for a former chair of the English department, the Reiberg Series brings to campus each year an array of well-known and emerging fiction writers and poets for readings. Past writers have included Maxine Hong Kingston, Edward Hirsch, Catherine Bowman, David Citino, and Calvin Forbes.

Student Readings Each semester, the Creative Writing Program sponsors a series of monthly student readings at a local coffee house. For times and venues, or to be a featured reader, contact Terry Kirts, tkirts@iupui.edu, (317) 274-8929.

Undergraduate Courses

The department offers courses in five areas: linguistics, literature, writing, creative writing, and film studies.

The 100 level courses meet general degree requirements, but do not satisfy those of the major. The 200 level courses introduce basic areas of study and provide cultural and intellectual development for the nonmajor; these courses also provide a firm foundation for students who wish to continue advanced studies in English. The 300 level courses specialize in subjects of particular interest to English and education majors; they are open to juniors and seniors (or others with consent of the instructor). Usually conducted as seminars, the 400 level courses are intensive studies of special subjects.

Although the English department does not have prerequisites indicated for most courses, it is highly recommended that students complete W131 before taking any other English courses. In general, 100 level courses are designed for freshmen, 200 level courses for sophomores, etc.

Internship

E398 Internship in English (3-6 cr.) P: consent of instructor. A supervised internship in the use of English in a workplace. Apply during semester before desired internship.

Capstone Course

E450 Capstone Seminar (3 cr.) This senior capstone for all English majors integrates students' undergraduate study through writing and reading projects, faculty and student presentations, and creation of capstone portfolios. Students apply linguistic, literary, and rhetorical knowledge in culminating projects and learning portfolios. The course looks back at accomplishments and forward to post-graduation planning.

Linguistics

G104 Language Awareness (3 cr.) A nontechnical introduction to the study of linguistics, this course takes an interdisciplinary approach to language behavior. Particular attention is paid to cultural, social, and psychological aspects of language use. Topics vary and may include language origin, child language acquisition, gender and language, dialects, and slang, among others.

G204 Rhetorical Issues in Grammar and Usage (3 cr.) An introduction to English grammar and usage that studies the rhetorical impact of grammatical structures (such as noun phrases, prepositional phrases, different sentence patterns). This course considers language trends and issues, the role of correctness in discourse communities, and the relations between writing in context and descriptive and prescriptive grammars and usage guides.

G205 Introduction to the English Language (3 cr.) An introduction to the English language and to the principles and methods of linguistics, this course is designed to be the first course in English linguistics. The course examines the phonology, morphology, syntax, and semantics of English and discusses a range of applications of these basic concepts in areas such as first and second language acquisition and language education.

G206 Introduction to Grammar (3 cr.) R: G205. This course examines topics such as the systematic way in which information is encoded in discourse, the various functions of speech, the structure of conversation, and the comparison of spoken and written language. Emphasis is also placed on varieties of English and how they are used and perceived in our society.

G301 History of the English Language (3 cr.) P: G205, G206, or consent of instructor. The historical and structural analysis of the English language is surveyed through the stages of its development. Background provided in G205 would be useful in this course.

G302 Structure of Modern English (3 cr.) P: G205, G206, or consent of instructor. This course examines in some depth the syntax (i.e., the principles and rules that govern the structure of sentences) and semantics (i.e., meaning encoded in language) of the English language.

G310 Social Speech Patterns (3 cr.) P: G205, G206, or consent of instructor. This course explores the relationships among language, society, and culture. The influence of such social factors as age, sex, status, class, and education on language use are discussed within the framework of various theoretical and methodological approaches. Reasons for positive and negative evaluations of several high- and low-prestige varieties of English are investigated.

ENG G400 Teaching English for Specific Purposes (3 cr.) P: G205. Provides learners with historical and theoretical background of English for Specific Purposes. Participants will study the characteristics of specific language use situations and their effect on learning and use. The course is especially useful for those interested in teaching English in the workforce.

ENG G432 Second Language Acquisition (3 cr.) An introduction to a broad range of issues in the field of second language acquisition, providing the student with an overview of the most important approaches to the fundamental questions of how people learn a second language. Provides students with basic knowledge of theories of second language acquisition, and an understanding of how theoretical perspectives inform practical application.

ENG G434 TESOL Methods (3 cr.) P: G432 or consent of instructor. The course examines recent theories of teaching English as a second or foreign language. Students will get a chance to examine theories and methods and develop knowledge of linguistic resources available to new and/or practicing teachers.

ENG G441 Materials Preparation for ESL Instruction (3 cr.) P: G205. Students learn about materials preparation, syllabus design, and test preparation by applying a variety of theories to books and other ESL (English as a Second Language) teaching devices (e.g. ESL tapes, videotapes, and software programs) in order to evaluate their usefulness. Students will learn to evaluate ESL materials for adequacy.

Literary Study

L105 Appreciation of Literature (3 cr.) Stresses the enjoyment and humane values of literature. It will provide workshop experiences and programmed exercises as well as experience in listening to and studying visual adaptations of poems, novels, and dramas.

L115 Literature for Today (3 cr.) P: W131. Poems, dramas, and narratives pertinent to concerns of our times: e.g., works concerning values of the individual and society, problems of humanism in the modern world, conflicts of freedom and order.

L200 Popular Culture (3 cr.) Critical and historical study of trends in popular culture, especially American, and its significance in the formation of national character.

L202 Literary Interpretation (3 cr.) Close analysis of representative texts (poetry, drama, fiction) designed to develop art of lively, responsible reading through class discussion and writing of papers. Attention to literary design and critical method. May be repeated once for credit by special arrangement with Department of English.

L203 Introduction to Drama (3 cr.) Representative significant plays to acquaint students with characteristics of drama as a type of literature. Readings may include plays from several ages and countries.

L204 Introduction to Fiction (3 cr.) Representative works of fiction; structural technique in the novel, theories and kinds of fiction, and thematic scope of the novel. Readings may include novels and short stories from several ages and countries.

L205 Introduction to Poetry (3 cr.) Kinds, conventions, and elements of poetry in a selection of poems from several historical periods.

L206 Introduction to Nonfictional Prose (3 cr.) Genre, structure, or other literary aspects of selected works of nonfictional prose.

L207 Women and Literature (3 cr.) Issues and approaches to critical study of women writers in British and American literature.

L208 Topics in English and American Literature and Culture (3 cr.) Selected works of English and/or American literature in relation to a single cultural problem or theme. Topics vary from semester to semester. May be repeated once for credit.

L213-L214 Literary Masterpieces I-II (3-3 cr.) Literary masterpieces from Homer to the present. Aims at thoughtful, intensive analysis, appreciation of aesthetic values, and enjoyment of reading.

L220 Introduction to Shakespeare (3 cr.) Rapid reading of at least a dozen major plays and poems. May not be taken concurrently with L315.

L301 Critical and Historical Survey of English Literature I (3 cr.) Representative selections with emphasis on major writers from the beginnings to Swift and Pope.

L302 Critical and Historical Survey of English Literature II (3 cr.) Representative selections with emphasis on major writers from the rise of romanticism to the present.

L305 Chaucer (3 cr.) Chaucer's works with special emphasis on *The Canterbury Tales*.

L315 Major Plays of Shakespeare (3 cr.) A close reading of a representative selection of Shakespeare's major plays.

L346 Twentieth-Century British Fiction (3 cr.) Modern fiction, its techniques and experiments, particularly Joyce, Lawrence, and Woolf; some later novelists may be included.

L348 Nineteenth-Century British Fiction (3 cr.) Forms, techniques, and theories of fiction as exemplified by such writers as Scott, Dickens, Eliot, and Hardy.

L351 Critical and Historical Study of American Literature I (3 cr.) American writers to 1865: Emerson, Hawthorne, Melville, Whitman, and two or three additional major writers.

L352 Critical and Historical Study of American Literature II (3 cr.) American writers, 1865-1914: Twain, Dickinson, James, and two or three additional major writers.

L354 Critical and Historical Study of American Literature III (3 cr.) Study of modernist and contemporary American writers in various genres, 1914 to the present, including Frost, Stein, Faulkner, O'Connor, Baldwin, Morrison, and others.

L355 American Novel: Cooper to Dreiser (3 cr.) Representative nineteenth-century American novels.

L358 Twentieth-Century American Fiction (3 cr.) Study of major trends in American fiction since 1900, including such topics as experimentalism and the development of minority literatures.

L363 American Drama (3 cr.) Main currents in American drama to the present.

L365 Modern Drama: Continental (3 cr.) Special attention to Ibsen, Strindberg, Chekhov, Hauptmann, Pirandello, Brecht, and Sartre and to the theatre of the absurd.

L366 Modern Drama: English, Irish, and American (3 cr.) Twentieth-century drama, from Bernard Shaw and Eugene O'Neill to Samuel Beckett, Harold Pinter, David Mamet, Marsha Norman, and August Wilson.

L370 Black American Writing (3 cr.) A study of the major black American writers, with special emphasis on recent writing.

L372 Contemporary American Fiction (3 cr.) Examination of representative American fiction since 1955 in its social, cultural, and historical contexts. Topics include such issues as the representation of truth in fiction, intertextuality, and the transgressions of genre boundaries.

L373-L374 Interdisciplinary Approaches to English and American Literature I-II (3-3 cr.) Social, political, and psychological studies in English and American literature. Topics may vary and include, for example, Freud and literature, responses to revolution, the literature of technology, and literature and colonialism.

L376 Literature for Adolescents (3 cr.) An examination of the nature and scope of adolescent literature. Wide reading of contemporary literature, with emphasis on the value of selections for secondary school students and appropriate modes of study.

L378 Studies in Women and Literature (3 cr.) British and American authors such as George Eliot or Gertrude Stein; groups of authors such as the Brontë sisters or recent women poets; or genres and modes such as autobiography, film, or criticism. Topics will vary by semester.

L379 American Ethnic and Minority Literature (3 cr.) Analysis of literature by and about immigrants from diverse cultures as well as ethnic literature about groups such as African Americans, Appalachians, Hispanics, and Native Americans, from a historical and thematic perspective.

L381 Recent Writing (3 cr.) Selected writers of contemporary significance. May include groups and movements (such as black writers, poets of projective verse, new regionalists, parajournalists and other experimenters in pop literature, folk writers, and distinctly ethnic writers); several recent novelists, poets, or critics; or any combination of groups. May be repeated once for credit by special arrangement with the Department of English.

L382 Fiction of the Non-Western World (3 cr.) An in-depth study of selected narratives from the fiction of the non-Western world. Focus and selections vary from year to year. May be repeated once for credit.

L385 Science Fiction (3 cr.) A survey of British and American science fiction from the nineteenth to the twentieth century with an emphasis on the latter.

L390 Children's Literature (3 cr.) Historical and modern children's books and selections from books; designed to assist future teachers, parents, librarians, or others in selecting the best in children's literature for each period of the child's life.

L406 Topics in African American Literature (3 cr.) Focuses on a particular genre, time period, or theme in African American literature. Topics may include 20th century African American women's novels, black male identity in African American literature, or African American autobiography. May be repeated once for credit with different focus.

L431 Topics in Literary Study (3 cr.) Study of characteristics and development of literary forms or modes (e.g., studies in narrative, studies in romanticism). Topics vary from year to year. May be repeated once for credit.

L433 Conversations with Shakespeare (3 cr.) An interdisciplinary and intertextual study of Shakespeare's work and its influence down to the present day. Students will compare Shakespeare texts with latter-day novels, plays, poems, and films that allude to or incorporate some aspect of Shakespeare's art.

L440 Senior Seminar in English and American Literature (3 cr.) P: one 200-level and four 300-400 level literature courses. Detailed study of one or more major British and American writer or of one significant theme or form. Subject varies each semester. May be repeated once for credit.

L495 Individual Readings in English (1-3 cr.) P: consent of instructor and departmental director of undergraduate studies. May be repeated once for credit.

Writing

The School of Liberal Arts requires English W131 or W140, and W132 or W150 for graduation for both the A.A. and the B.A. degrees. Any entering student who does not have credit for English W131 must take the IUPUI English Placement Test before enrolling in W131 or W140. Qualified students may test out of English W131 but must take English W132.

W130 Principles of Composition (3 cr.) P: Placement in W130. Practice in writing papers for a variety of purposes and audiences, with attention to reading/writing connections.

W131 Elementary Composition I (3 cr.) P: W131 placement or W001 (with a grade of C or better). Fulfills the communications core requirement for all undergraduate students and provides instruction in exposition (the communication of ideas and information with clarity and brevity). The course emphasizes audience and purpose, revision, organization, development, advanced sentence structure, diction, development within a collaborative classroom. Evaluation is based upon a portfolio of the student's work.

W132 Elementary Composition II (3 cr.) P: W131 (with a grade of C or better). Stresses argumentation and research concurrently, with a secondary emphasis on critical evaluation in both reading and writing. Evaluation is based upon a portfolio of the student's work.

W140 Elementary Composition/Honors (3 cr.) P: W140 placement or permission of the instructor. Offers an introductory writing course for advanced freshmen writers. Requirements, including number and type of assignments, are parallel to W131. W140 offers greater intensity of discussion and response to writing. Evaluation is based upon a portfolio of the student's work. Students' eligibility for W140 is determined by the IUPUI English Placement Exam scores.

W150 Elementary Composition II/Honors (3 cr.) P: W140 (with a grade of C or better) or W131 and permission of the instructor. Allows an honors student to explore the investigative methods used within a chosen discipline as an introduction to academic writing. Individual projects using these various methods combine primary and secondary skills. Evaluation is based upon a portfolio of the student's work. Replacing W132 or W231 for honors students, this course follows W140.

W210 Literacy and Public Life (3 cr.) An introduction to the uses of literacy in public and civic discourse, with connections made to theories of writing and professional prospects for writers; serves as the required gateway course for the Concentration in Writing and Literacy and as an exploration of this concentration for other English majors and students considering the possibility of an English major.

W231 Professional Writing Skills (3 cr.) P: W131 (with a grade of C or better). Focuses on expository writing for the student whose career requires preparation of reports, proposals, and analytical papers. Emphasis on clear and direct objective writing and on investigation of an original topic written in report form, including a primary research project. Evaluation is based on a portfolio of student's work.

W250 Writing in Context (1-3 cr.) Offers instruction in intermediate-level expository writing. Students study a contemporary issue and write papers on that issue. Topics will vary from year to year. May be repeated once for credit.

W251 Introductory Business Writing (1 cr.) An introduction to business writing, with an emphasis on developing an effective writing process. (Does not count toward the major in Writing and Literacy.)

W260 Film Criticism (3 cr.) Viewing and critiquing current films, with emphasis on the quality of production and direction. Contemporary films viewed; papers serve as a basis for discussion during class. Students will be expected to pay for their movie admissions.

W290 Writing in the Arts and Sciences (3 cr.) Studies academic writing as a means of discovery and record. Study of and practice in the procedures, conventions, and terminology of the humanities, social sciences, and natural sciences.

W310 Language and the Study of Writing (3 cr.) Designed as an introduction to the logical foundation and rhetorical framework of effective writing. May be used for linguistics credit in the English major or linguistics minor.

W313 The Art of Fact: Writing Nonfiction Prose (3 cr.) P: at least one 200-level writing course or excellent performance in W131 and/or W132 (contact the instructor if you are unsure of your readiness for this course). Students will read and analyze professional and student work as they prepare to practice the art of fact by combining the tools of a researcher with the craft of a novelist. The final portfolio includes a stylistic analysis of the student's and others' nonfiction works as well as two illustrated nonfiction texts based on the student's primary and secondary research.

W315 Writing for the Web (3 cr.) Introduces students to new forms of writing (beyond word processing and desktop publishing) made possible by computers—hypertext, electronic mail, and computer conferencing—and explores what impact these new forms have on literacy skills for writers and readers of such computer-delivered texts.

W331 Business and Administrative Writing (3 cr.) Instruction and practice in writing for business, government, the professions, and the nonprofit sector. The course emphasizes principles that can be applied in a wide variety of documents.

W365 Theories and Practices of Editing (3 cr.) Instruction and practice in the mechanical, stylistic, and substantive editing of English nonfiction prose, from a wide variety of genres and on a wide variety of subjects.

W390 Topics in Writing (3 cr.) Topics will vary each time this course is offered, and the department will specify which area of the concentration in Writing and Literacy each offering will count toward. May be repeated once for credit.

W396 Writing Fellows Training Seminar (3 cr.) P: W131 and permission of instructor. Internship in University Writing Center. Focuses on the writing of IUPUI students. Emphasis on questioning, strategies, problem solving, and self-analysis. Apply in spring for fall enrollment.

W400 Issues in Teaching Writing (3 cr.) Focuses on the content of rhetoric and composition and considers fundamental theoretical and practical issues in the teaching of writing. Reviews rhetorical and compositional principles that influence writing instruction, textbook selection, and curriculum development.

W411 Directed Writing (1-3 cr.) P: Consent of instructor. Individual projects worked out with instructor. Credit varies with scope of project.

W412 Literacy and Technology (3 cr.) Literacy and technology have multifaceted relationships with each other. This course explores the effects of technologies (ranging from clay tablets to the printing press to computers) on literate practices and the teaching of reading and writing. It prepares students to think critically about the possibilities and limitations associated with different technologies and their impact on literacy over time, the impact of technology on their own literacies, and to analyze educational uses of technology connected with literacy.

Creative Writing

W206 Introduction to Creative Writing (3 cr.)

An introduction to the techniques and principles of creative writing. Written assignments, independent work, and workshop discussions of the fundamentals of fiction, poetry, and drama. This course is a prerequisite for all other courses in creative writing.

W207 Introduction to Fiction Writing (3 cr.)

An introduction to the techniques and principles of fiction writing. Written assignments, workshop discussions of student work in progress, seminar study of classic and contemporary examples of the genre. This course may be used as a prerequisite for W301.

W208 Introduction to Poetry Writing (3 cr.)

W208 offers students an introduction to the craft and practice of poetry writing: how to find subjects for writing; to create images, similes, and metaphors; to make rhyme sound natural; to produce both metered and free-verse poetry. Part of the class will be a workshop in which students will learn to revise their poems and those of fellow students. This course can serve as a prerequisite for W303.

W301 Writing Fiction (3 cr.) P: W206 or W207 or submission of acceptable manuscript to instructor in advance of registration. An intermediate course in the theory and practice of fiction writing with seminar study of relevant materials and criticism of student work in class and conference. May be repeated once for credit.

W302 Screen Writing (3 cr.) P: W206 or W207 or W208, or permission of instructor. A practical course in basic techniques of writing for film and television. Covers the essentials of dramatic structure, story development, characterization and theme, scene construction, dialogue, and, briefly, the practicalities of working as a screenwriter today.

W303 Writing Poetry (3 cr.) P: W206, or W208 or submission of acceptable manuscripts to instructor in advance of registration. An intermediate course in the theory and practice of poetry writing with seminar study of relevant materials and criticism of student work in class and conference. May be repeated once for credit.

W305 Writing Creative Nonfiction (3 cr.)

P: W206 or submission of acceptable manuscript to instructor in advance of registration. An intermediate course in the theory and practice of creative nonfiction prose, with seminar study of relevant materials and workshop discussion of student work in progress. May be repeated once for credit.

W401 Writing Fiction (3 cr.) P: W301. Study and practice in the writing of fiction. Analysis of examples from contemporary literature accompanies class criticism and discussion. May be repeated once for credit.

W403 Advanced Poetry Writing (3 cr.) P: W303. Study and practice in the writing of poetry. Analysis of examples from contemporary poets accompanies class criticism and discussion. May be repeated once for credit.

W411 Directed Writing (1-3 cr.) P: Consent of instructor consenting to direct it. Individual projects worked out with instructor. Credit varies with scope of project. May be repeated once for credit.

English as a Second Language (ESL)

International students are placed into appropriate ESL courses according to their scores on the ESL placement test. The classes are open to both undergraduate and graduate students. Except for W131, credits from these courses will not count toward a degree; however, grades awarded will be included in the student's grade point average.

The English as a Second Language sequence—G009, G010, G011, and G012—focuses on fundamental language skills. It is designed to correct pronunciation problems, to improve listening comprehension, and to improve the student's ability to participate actively and effectively in a range of communication situations, from simple conversation to seminar discussion. Although emphasis is on speaking proficiency in English, basic reading, writing, and study skills are essential components of these courses.

Students must complete all other required ESL courses before enrolling in G013 or ESL W131, with the exception of G012, which may be taken simultaneously with those two courses.

G009 Intermediate Aural/Oral Skills for ESL Students (2-4 cr.)

Intensive practice of basic speaking and pronunciation skills, as well as listening comprehension skills, to develop language proficiency required for study at the university level. Students will make extensive use of the Multimedia Language Resource Center.

ENG G010 ESL for Academic Purposes I (4 cr.)

This course introduces and reviews basic English grammatical structures; presents basic reading strategies and vocabulary development; provides practice in pronunciation of English consonant and vowel sounds, stress, rhythm, and intonation; and focuses on functional language use and study skills.

ENG G011 ESL for Academic Purposes II (4 cr.)

This course provides practice in and clarification of difficult grammatical structures; improves spoken language skills, emphasizing group discussion; focuses on pronunciation skills: word stress, intonation, and difficult sounds; encourages development of reading strategy skills: skimming, scanning, and summarizing; and augments the student's understanding of American culture and functional language use.

ENG G012 Listening and Speaking for Academic Purposes (3 cr.)

This course focuses on developing speaking and listening skills that are essential to academic life, encouraging participation in group discussion, improvement in presentation strategies, and development of questioning and answering skills. It provides community involvement to help students better understand American culture and language use. Reading skills and vocabulary development for the academic context are emphasized.

G013 Reading and Writing for Academic Purposes (3 cr.)

This course is designed primarily for graduate ESL students. Its purpose is to develop reading comprehension skills through the use of academic subject area materials and to teach the writing skills necessary to complete academic work.

Assignments are completed using materials from the students' academic disciplines.

G015 Pronunciation Skills (1 cr.) This course focuses on American English pronunciation and stresses active learner involvement in small groups and self-tutorials. Practice in a contextualized format includes drills and multimedia listening and speaking activities. Classwork emphasizes stress and intonation patterns and vowel and consonant production. Individualized instruction focusing on specific needs is a component of the course.

ENG G020 Communication Skills for Graduate Students and International Teaching Assistants (3 cr.)

This course for graduate International Teaching Assistants provides instruction on basic teaching strategies and helps students develop the oral language skills necessary to present academic materials in English to a student audience. Pronunciation, listening comprehension, and classroom interaction skills are practiced. Regular conferences focus on individual pronunciation needs.

ESL W001 Fundamentals of English (3 cr.)

This course develops fluency and amplitude in writing through in-class instruction in invention, focus, development, and revision. Grammar instruction is individualized, and students have practice in English sentence patterns, word choice, and idiomatic expressions. Evaluation is based upon a portfolio of the student's work.

ESL W131 Elementary Composition I (3 cr.) This course, which fulfills part of the communication core requirement for all undergraduate students, is designed to help students improve their English writing skills.

Film Studies

CMLT C292 An Introduction to Film (3 cr.)

Nature of film technique and film language; analysis of specific films; major historical, theoretical, and critical developments in film and film study from the beginnings of cinema to the present.

CMLT C390 The Film and Society: Topics (3 cr.)

P: C190 or consent of instructor. Film and politics; race and gender; social influences of the cinema; rise of the film industry. May be repeated once with different topic.

CMLT C391 The Film: Theory and Aesthetics (3 cr.)

P: C190 or consent of instructor. Film form and techniques; aesthetic and critical theories of the cinema; relationships between film movements and literary and artistic movements; relationships of word and image; analysis of significant motion pictures.

CMLT C392 Genre Study in Film (3 cr.)

P: C190 or consent of instructor. Problems of definition; the evolution of film genres such as criminal or social drama, comedy, the western, science fiction, horror, or documentary film; themes, subject matter, conventions, and iconography peculiar to given genres; relationship of film genres to literary genres. Focus on one specific genre each time the course is offered. May be repeated once with different topic.

CMLT C393-C394 History of European and American Films I-II (3-3 cr.)

P: C190 or consent of instructor. C393 is a survey of the development of cinema during the period 1895-1926 (the silent film

era); C394 is a survey of European and American cinema since 1927. Particular attention paid to representative work of leading filmmakers, emergence of film movements and development of national trends, growth of film industry, and impact of television.

CMLT C491 Authorship and Cinema (3 cr.) P: C190 or consent of instructor. Study of the work of one or more film artists. Attention paid to the style, themes, and methods that make the filmmaker's work unique. Filmmakers studied in the contexts of film traditions, ideologies, and industries which informed their work. May be repeated one time with a different topic.

CMLT C493 Film Adaptations of Literature (3 cr.) P: C190 or consent of instructor. Analysis of the processes and problems involved in turning a literary work (novel, play, or poem) into a screenplay and then into a film. Close study of literary and film techniques and short exercises in adaptation.

ENG W260 Film Criticism (3 cr.) Viewing and critiquing current films, with emphasis on the quality of production and direction. Contemporary films are viewed; papers serve as a basis for discussion during class. Students will be expected to pay for their movie admissions.

Master of Arts Degree

The graduate English program has been designed to prepare students for careers in the analysis and production of texts. The program covers issues and skills in reading and writing, in the richest sense of these words—in order to prepare students to address these issues and to teach these skills. Graduates of the program should be prepared for such careers as teaching writing and literature, teaching English as a second language, and writing for business, government, and other professions. In contrast to traditional M.A. programs, which place heavy emphasis on literary history, the IUPUI program focuses on the application of English studies to contemporary situations and problems.

Admission Requirements (1) Applicants should have a bachelor's degree from an accredited college or university, with a minimum grade point average of 3.0 (on a 4.0 grading scale) in the student's undergraduate major, documented by an official transcript. Applicants are expected to have been English majors, but admission also is considered for those who otherwise demonstrate the competency necessary for successful graduate work in English. (2) The Graduate Record Examination (GRE) General Test with a minimum score of 600 in at least one of the three areas. Applicants are encouraged to take the examination by December of the year before admission. (3) Three letters of recommendation. (4) Two years of foreign language as an undergraduate with appropriate level of achievement.

Grades M.A. students must maintain a minimum grade point average of 3.0 (B).

Course Requirements The M.A. in English requires 36 credit hours, including 12 credit hours of "core" courses, 12-16 credit hours of "area" courses, 4-8 credit hours of internship, and 4 credit hours of thesis work. The three core courses provide

an introduction to three major areas in the discipline of English: Language: G500 Introduction to the English Language; Writing: W500 Teaching Composition: Theories and Applications; Literature: L506 Issues and Motives of Literary Studies. These courses, which carry 4 credit hours each, should be taken at the beginning of the graduate program.

Foreign Language Requirements There is no foreign language requirement, but M.A. students going on for the Ph.D. are encouraged to validate their reading proficiency in a foreign language according to University Graduate School standards.

Graduate Courses

Graduate courses commonly offered are as follows.

Graduate Linguistics Courses

G500 Introduction to the English Language (4 cr.) An introduction to English linguistics, the course covers the principal areas of linguistic inquiry into the English language: sounds (phonetics and phonology), words, (morphology), sentences (syntax), and meaning (semantics).

G525 ESL Practicum (3 cr.) Students will be able to put into practice methods and principles of linguistics, second language acquisition, and language teaching. Under supervision, they will teach ESL classes either at IUPUI or in a local school system.

L532 Second Language Acquisition (3 cr.) An introduction to a broad range of issues in the field of second language acquisition, providing the student with an overview of the most important approaches to the fundamental question of how people learn a second language. Provides students with basic knowledge of theories of second language acquisition, and an understanding of how theoretical perspectives inform practical application.

L534 Linguistic Resources for TESOL (3 cr.) The course examines recent theories of teaching English as a second or foreign language. Students will get a chance to examine theories and methods and develop knowledge of linguistic resources available to new and/or practicing teachers.

G541 Materials Preparation for ESL Instruction (4 cr.) Students learn about materials preparation, syllabus design, and test preparation by applying a variety of theories to books and other teaching devices (e.g., tapes, videotapes, computer and software programs) in order to evaluate their usefulness and will learn to evaluate ESL materials for adequacy.

G625 Introduction to Text Linguistics/Discourse Analysis (4 cr.) This course introduces students to current approaches to text and discourse coherence, including recent theories of cognitive and interactional text modeling.

G652 English Language Sociolinguistics (4 cr.) This course investigates sociocultural aspects of language use and explores the relationships between language and society. The course provides background in various theoretical and methodological approaches to sociolinguistics. Other topics to be covered include gender and language, ethnicity and language, social factors in language acquisition, and bilingualism. Familiarity with basic issues and concepts in linguistics would be useful.

Graduate Internship

L590 Internship in English (4-8 cr.) A supervised internship in the uses of language in the workplace. (For prospective teachers, the workplace may be a classroom.) Each intern will be assigned a problem or new task and will develop the methods for solving the problem or completing the task. Interns will complete a portfolio of workplace writing and self-evaluation; they will also be visited by a faculty coordinator and evaluated in writing by their on-site supervisors.

Graduate Thesis

L699 M.A. Thesis (4 cr.)

Graduate Literature Courses

L501 Professional Scholarship in Literature (4 cr.) Materials, tools, and methods of research. Includes work with standard bibliographical sources (both traditional and electronic), bibliographical search strategies, scholarly documentation, accessing special collections, preparing bibliographical descriptions of subject texts. Historical case studies reinforce coverage of professional standards of conduct, verification of sources, and thoroughness of research methodology.

L502 Introduction to Literacy Studies (4 cr.) Explores how and why people in our society—including children and adults—learn to read and write texts; investigates how literacy is defined, acquired, measured, and used in our society.

L506 Issues and Motives of Literary Studies (4 cr.) An examination of the importance of the notion of the *text* for contemporary literary theory.

L553 Studies in Literature (4 cr.) Primarily for secondary school and college teachers of English. Emphasis on thematic, analytic, and generic study. With consent of instructor, may be repeated once for credit.

L560 Literary Studies in England and Scotland (4 cr.) Provides on-site opportunities in England and Scotland to explore the literary landscapes of British authors in relation to the English and Scottish school systems. Designed primarily for education majors and continuing certification credits.

L573 Interdisciplinary Approaches to English and American Literature (3 cr.) Social, political, and psychological studies in English and American literature. Topics may vary and include, for example, literature and colonialism, literature and psychoanalysis, or literature and gender. May also include other world literatures.

W600 Topics in Rhetoric and Composition (4 cr.) Topics will vary each time the course is offered.

L606 Topics in African American Literature (4 cr.) Focuses on a particular genre, time period, or theme of African American literature. Examples: twentieth-century African American women's novels, black male identity in literature, kinship in African American literature, African American autobiography. May be repeated twice for credit with different focuses.

L625 Shakespeare (4 cr.) Critical analysis of selected tragedies, comedies, history plays, and poetry.

L645 English Fiction, 1800-1900 (4 cr.)

Intensive historical and critical study of nineteenth-century prose fiction, especially the novel.

L655 American Literature since 1900 (4 cr.)

Intensive historical and critical study of all genres from the time of Theodore Dreiser to the present.

L680 Special Topics in Literary Study and Theory (4 cr.)

Reading in sociological, political, psychological, and other approaches to literature.

L681 Genre Studies (4 cr.)

A variable title course, Genre Studies examines the specific characteristics of individual genres. May be repeated once for credit.

L695 Individual Readings in English (1-4 cr.)**Graduate Writing Courses**

W500 Teaching Composition: Issues and Approaches (4 cr.) Considers major issues involved in the teaching of composition at elementary, secondary, and college levels, and explores the pedagogical approaches inherent in these issues.

W510 Computer in Composition (3 cr.) Proceeds from current theories about writing processes and surveys the use of computer programs (such as word processing) as writing tools, computer-assisted instruction as a teaching aid, and computer programs as research aids to study writing.

W511 Graduate Fiction Writing (4 cr.)

A graduate-level fiction writing workshop. Seminar study of advanced techniques in the writing of fiction, both short stories and the novel. Workshop discussion of advanced student work in progress.

W513 Graduate Poetry Writing (4 cr.)

W513 offers graduate students an intensive experience in reading and writing poetry. Part workshop and part seminar in poetic practice and technique, W513 provides an opportunity for graduate students to expand their poetic range and hone their craft.

W553 Theory and Practice of Exposition (4 cr.)

Explores the writing and analysis of exposition, especially for high school or college teachers.

W590 Teaching Composition: Theories and Applications (4 cr.) Explores current theories of composition inherent in current classroom practices and considers their pedagogical implications.

W600 Topics in Rhetoric and Composition (4 cr.) Topics will vary each time this course is offered.

W609 Individual Writing Projects (1-4 cr.)

Enables students to work on a writing project which they initiate, plan, and complete under the direction of an English department faculty member. Credit hours dependent upon scope of project.

Film Studies

For information on film studies, see the description of the film studies minor included in the “English” section of this bulletin. For course descriptions, consult the “English” and “German” sections in this bulletin. For English majors, film studies courses are considered part of the major.

Comparative Literature

C190 An Introduction to Film (3 cr.)

C290 Survey of Film History (3 cr.)

C390 The Film and Society: Topics (3 cr.)

C391 The Film: Theory and Aesthetics (3 cr.)

C392 Genre Study in Film (3 cr.)

C393-C394 History of European and American Films (3-3 cr.)

C491 Authorship in Cinema (3 cr.)

C493 Film Adaptations of Literature (3 cr.)

C494 Film Criticism: Theory/Practice (3 cr.)

English

W260 Film Criticism (3 cr.)

German

G370 German Cinema (3 cr.)

G371 Der deutsche Film (3 cr.)

Foreign Languages and Cultures

(Arabic, Chinese, Classical Studies, French, German, Italian, Japanese Studies, Spanish)

Chair Professor Larbi Oukada

Academic Advising Cavanaugh Hall 405, (317) 274-0062, www.iupui.edu/~flac. See specific program advisors listed below.

Foreign languages taught for credit at IUPUI include the courses offered by the three degree-granting programs of French, German, and Spanish; courses offered by Japanese Studies and Classical Studies (which offer minors); and all other foreign language courses for languages that have not yet developed into programs that include Arabic, Chinese, and Italian. The programs offered in Classical Studies, French, German, Japanese Studies, and Spanish can be found under those programs listed alphabetically below; other courses are listed together at the end of the Foreign Languages and Cultures section.

Study Abroad

Students interested in completing part of their course work overseas should contact the department or the Office of International Affairs early in their studies. The International Studies Coordinator may be reached at 274-7000 or 274-2081, Union Building Rm. 203, international.iupui.edu.

Foreign Languages and Cultures (FLAC)**F200 World Cultures through Literature (3 cr.)**

P: W131. This course develops intercultural awareness and understanding through comparative study of the relationship between selected texts and their specific cultural context. One theme is examined in literature and other media by a team of experts in a variety of literatures from around the world.

Certificate in Translation Studies—English to/from French/German/Spanish

Program Description

The Department of Foreign Languages and Cultures offers a Certificate in Translation Studies with an emphasis in French, German, or Spanish. The certificate requires completion of 27 credit hours focusing on grammar, professional writing skills, culture, translation history and theory, nonliterary translation from English to French/German/Spanish and French/German/Spanish to English, and computer translation and terminology management. A minimum of 15 credit hours toward the certificate must be completed at IUPUI.

Admission Requirements

Certificate candidates must possess fluency in their language pair. To be admitted to the certificate program, students must have sophomore standing, and they must have completed English W132 or W150 with a grade of B or better; and S313, F328, G300, or equivalent with a grade of B or better. After meeting the basic requirements for admission, the student must complete certificate-related courses with an overall GPA of 3.0 or better before qualifying for the internship or directed study. Because sequencing is important, students should consult with the director as soon as possible.

Course Requirements

1. **Core Courses (9 cr.)**
 - a. **Advanced Professional Writing** (Dept. of English) (3 cr.)
W331 Business and Administrative Writing
W355 Business Correspondence
W365 Theories and Practices of Editing
 - b. **Advanced Grammar (3 cr.)**
F402 Introduction to Linguistics or F421 Fourth Year French
G445 Advanced Grammar
S421 Advanced Spanish Grammar
 - c. **Culture Course (3 cr.)**
F461 La France contemporaine
G365 Deutsche Kultur Heute
S411 Culture and Civilization of Spain **or**
S412 Culture and Civilization of Latin America
2. **Courses in Translation (15 cr.)**
 - a. **History and Theory of Translation (3 cr.)**
FLAC F350 Introduction to Translation Studies
 - b. **Translation Practice (6 cr.)**
F330 Introduction to Translating French and English
F423 The Craft of Translation
G333 German Translation Practice
G423 The Craft of Translation
S323 Introduction to Translating Spanish and English
S423 The Craft of Translation
 - c. **Computers in Translation (3 cr.)**
FLAC F450 Computers in Translation
 - d. **Terminology Studies (3 cr.)**
F326 French in the Business World
G331 Business German I **or**
G431 Advanced Business German
S315 Spanish in the Business World **or**
S319 Spanish for Health Care Personnel **or**
S419 Spanish for Law Enforcement
3. **Internship or Directed Study (3 cr.)**
 - a. **Internship**
F493 Internship Program in French
G493 Internship Program in German
S493 Internship Program in Spanish
 - b. **Directed Study**
F495 Individual Readings in French
G498 Individual Studies in German
S494 Individual Readings in Hispanic Studies

For an application form, call Dr. Enrica Ardemagni, Director, Certificate in Translation Studies Program, 274-8957, or visit www.iupui.edu/~flac.

Classical Studies

Coordinator Associate Professor Robert F. Sutton Jr.

Associate Professor Robert F. Sutton Jr.

Academic Advising Cavanaugh Hall 501B, 274-2497, or Cavanaugh Hall 405, 274-0062

Classical Studies is an interdisciplinary field, examining the vanished civilizations of ancient Greece and Rome and their languages. Although the study of the Greek and Latin languages no longer holds a central place in a university curriculum, the art, literature, and intellectual traditions of the classical world remain basic to Western civilization. Today's student may encounter the classical world through the many fine translations available, the physical evidence of art and archaeology, and the study of the Greek and

Latin languages themselves. Courses are offered in four areas: classical archaeology; classical civilization; and the classical languages, ancient Greek and Latin.

Classical Archaeology

These courses study the art and archaeology of Greece and Italy, as well as the nearby lands affected by their civilization from earliest times through the end of the Roman world. Advanced work in the field leads to careers in archaeological research, museums, and teaching. These interdisciplinary courses may be of special interest to students in anthropology, history, and the history of art. Courses in classical archaeology require no knowledge of the Greek and Latin languages.

Classical Civilization

These general courses in the literature, history, culture, and intellectual traditions of ancient Greece and Rome require no knowledge of Greek or Latin. Such courses provide valuable background to students in a number of fields, and may be especially attractive to those planning to teach English, history, and related areas. In addition to the courses listed below, other relevant courses include History C386 and C388 and Philosophy P307.

The Classical Languages

The study of ancient Greek or Latin, like that of any foreign language, provides the most direct means for understanding and appreciating the thought of another culture. The traditional emphasis on formal grammar and vocabulary in teaching the classical languages has long proven valuable for students wishing to improve their English language skills.

Ancient Greek

Study of ancient Greek allows students direct access to masterpieces of Greek literature, historical sources, and the New Testament, while opening up a limited number of careers in teaching, mostly at the university level. For ancient Greek literature in translation, see the listings in "Classical Civilization."

Latin

Studying Latin allows students direct access to masterpieces of Latin literature and ancient historical sources, as well as ecclesiastical and other materials of post-classical age. Knowledge of Latin is useful for students of English, modern languages and history, and can lead to careers in teaching at various levels. A shortage of Latin teachers at the secondary level may make this an attractive second area for students in education. For Latin literature in translation, see the listings in "Classical Civilization."

Study Abroad

Students have the opportunity to study in Greece through an arrangement between Indiana University Overseas Study and College Year at Athens (CYA). Students may receive IU credit for study in Greece at CYA for a semester, an entire academic year, or during the summer. Faculty at IUPUI and Bloomington alternate offering a three-week summer course in Athens; in some years students may stay on to take a second three-week anthropology course on modern Greece taught on the island of Paros. For information, contact the IUPUI Office of Overseas Study or consult its Web page at www.indiana.edu/~overseas. Scholarships and grants are available to help students participate in these programs.

Majors

Although IUPUI does not offer a major in Classical Studies, students may devise a major program in the field through the School of Liberal Arts Individualized Major Program. Such a major, if properly designed, should allow good students to gain admission to graduate programs in classical studies or classical archaeology and to pursue careers in the field. Students interested in planning an Individualized Major in classical studies should consult the coordinator of the Classical Studies Program and the Director of the Individualized Major Program as early as possible in their academic careers.

Minors in Classical Studies, Ancient Greek, and Latin

A minor in classical studies, ancient Greek, or Latin can be an attractive complement to many majors, particularly history, English, and other foreign languages.

The minor in **Classical Studies** consists of at least 15 credit hours in classical archaeology, classical civilization, ancient Greek, Latin, or related courses approved by the program coordinator. Students may wish to design concentrations in areas of particular interest (e.g., classical art and archaeology, or Greek or Roman civilization). At least 6 credit hours must be taken at the 300 level or higher; no more than 3 credit hours of ancient Greek or Latin at the 100 level may be counted. Up to 6 credit hours may be taken in related fields, including History C386, C388, and Philosophy P307.

Minors in **ancient Greek** or **Latin** should include at least 12 credit hours in the language at the 200 level or higher, and 3 credit hours in a related culture or history course. Students interested in graduate study in Classical Studies are encouraged to learn to read French and German prior to beginning graduate work.

Courses in Classical Archaeology

A301 Classical Archaeology (3 cr.) The material remains of the classical lands from prehistoric through Roman times and a variety of approaches by which they are understood. Archaeological theory and methods are illustrated through select sites, monuments, works of art, and other remains of cultural, artistic, and historical significance. (Equivalent to Herron H310 and Bloomington Classical Studies C206/Fine Arts A206; students may not receive credit for both courses.)

A418 Myth and Reality in Greek Art (3 cr.) An introduction to Greek iconography (the study of images) that explores contemporary approaches to narration and representation. The course examines the illustration of myth, history, and everyday life in Greek art in relation to ancient society. (Equivalent to Herron H418; students may not receive credit for both courses.)

C413 The Art and Archaeology of Greece (3 cr.) Art and archaeology of Greece from about 1000 B.C. through the Hellenistic period. Special attention given to the development of Greek architecture, sculpture, and vase painting. (Equivalent to Herron H413; students may not receive credit for both courses.)

C414 The Art and Archaeology of Rome (3 cr.) Development of Roman architecture, sculpture, and

painting from the beginning through the fourth century A.D. Consideration given to the major archaeological sites. Continuation of C413, but C413 is not a prerequisite. (Equivalent to Herron H414; students may not receive credit for both courses.)

Courses in Classical Civilization

C205 Classical Mythology (3 cr.) Introduction to Greek and Roman myths, legends, and tales, especially those that have an important place in the Western cultural tradition.

C209 Medical Terms from Greek and Latin (2 cr.) Basic knowledge of some 1,000 words, together with materials for formation of compounds, enables student to build a working vocabulary of several thousand words. Designed for those intending to specialize in medicine, dentistry, or microbiology. Does not count toward the foreign language requirements or the distribution requirement.

C310 Classical Drama (3 cr.) Masterpieces of ancient Greek and Roman theater studied in relation to literary, archaeological, and artistic evidence for their production and interpretation.

C311 Classical Epics (3 cr.) The development of Greek and Latin epic from the rich oral tradition of Homer to the strictly literary form exemplified by Vergil's *Aeneid*. Epic masterpieces are read with reference to relevant historical and archaeological background.

C351 The Golden Age of Athens (3 cr.) Literary and artistic masterpieces of classical Greece viewed against the intellectual, cultural, and political background of democratic Athens.

C361 The Golden Age of Rome (3 cr.) Literary and artistic masterpieces of the Augustan age viewed in connection with the foundation of the Roman Empire.

C396 Classical Studies Abroad (1-9 cr.) P: Acceptance into an approved Indiana University overseas study program. Credit for foreign study in Classical languages, civilization, and archaeology when no specific equivalent is available among departmental offerings. Credit in C396 may be counted toward a minor in classical studies or classical civilization with approval of undergraduate advisor. May be repeated for a maximum of 9 credit hours.

C491 Topics in Classical Studies (3 cr.) A detailed examination of a particular aspect of classical civilization using a variety of literary and archaeological evidence.

C495 Individual Reading in Classics (1-3 cr.) P: consent of department. May be repeated to a maximum of 6 credit hours.

Courses in Ancient Greek

G131-132 Elementary Ancient Greek I-II (5-5 cr.) P: G131 or equivalent. The essentials of ancient Greek grammar, vocabulary, and syntax that will allow students to begin study of classical and Biblical texts

G200 Greek Reading and Composition (3 cr.) P: G132 or equivalent. Readings from Greek writers such as Aesop, Xenophon, Thucydides, and Plato. Review of syntax and grammar through regular practice in prose composition.

G407 Greek Historians (3 cr.) Selections from Herodotus and Thucydides, with attention to the authors' literary style, their conception of history and the causation of events, and their portrayal of individuals and states.

G495 Individual Reading in Greek (1-3 cr.) P: consent of department. May be repeated once for credit.

Courses in Latin

L131-L132 Beginning Latin I-II (5-5 cr.) Fundamentals of the language; develops direct reading comprehension of Latin. P for L132: L131 or equivalent.

L200 Second-Year Latin I (3 cr.) P: L132 or placement. Reading from select authors, emphasizing the variety of Latin prose. Examination of the concept of genre. Grammar review and/or prose composition.

L250 Second-Year Latin II (3 cr.) P: L132 or placement. Reading from Vergil's *Aeneid* with examination of the epic as a whole. Prosody of dactylic hexameter and study of poetic devices. Grammar review.

L495 Individual Reading in Latin (1-3 cr.) P: consent of department. May be repeated once for credit.

French

Coordinator Professor Rosalie A. Vermette

Professor Larbi Oukada, Rosalie A. Vermette

Associate Professors Didier Bertrand, Obioma Nnaemeka

Assistant Professor James G. Beaudry (Emeritus)

Academic Advising: Cavanaugh Hall 501C, (317) 274-0064

The Major in French

Requirements for a major in French include 29 credit hours in courses above the 100 level. The departmental course offerings permit majors to emphasize either language or literature. The major with language emphasis includes F203, F204, F300, F328, F331, F402; and three courses from the following: F307, F326, F330, F360, F380, F451, F480. The major with literature emphasis includes F203, F204, F300, F328; and five courses from the following: F307, F360, F402, F410, F428, F430, F443, F444, F450, F452, F453, F454, F460, F495. Provided one has the proper prerequisites, one may elect a combination of the above courses for the major.

The Minor in French

14 credit hours: F203, F204, F328, and F300 or F360.

Teacher Certification in French Teaching Major Requirements

The teaching major in French requires the completion of a minimum of 36 credit hours beyond the 100 level, including 30 credit hours in 300 and 400 level courses. F300, F307, F328, F331, F360, and F402 are required. A year of a second foreign language is advisable. See also requirements of the School of Education. Students working toward certification are urged to work with the School of Education's advisor as well as their department advisor.

Teaching Minor Requirements

The teaching minor in French requires the completion of a minimum of 24 credit hours beyond the 100

level, including 18 credit hours in 300 and 400 level courses. F300, F307, F328, F331, F360, and F402 are required. See also requirements of the School of Education.

Departmental Honors Program

To provide recognition to outstanding students in French, the department offers an Honors Program as well as H-Option courses. The program is open to all majors in the department who carry a minimum grade point average of 3.3 overall and 3.5 in the major. Courses above F204 that are approved by the department may be taken for honors credit or for the H-Option. For further information, contact the department.

Foreign Study

Programs abroad are open to students majoring in all academic disciplines and are not restricted to language majors. There is a year-long program at the Université d' Aix-en-Provence that is open to juniors and seniors who have had three years of college French and one-semester programs at the Université de Rennes and at the Université de Paris. For students with two years of college French, there is a summer program in Paris. Students with at least one year (10 credit hours) of college French may participate in a summer program in Québec, Canada. Indiana University credit is granted for work that is satisfactorily completed in these programs. Students interested in studying abroad should discuss their options with the French program coordinator or with the Office of International Affairs as soon as possible.

Undergraduate Courses

F117-F118-F119 Beginning French I-II-III (3-3-4 cr.) Introductory language courses designed for students with no prior training in French. Emphasis on developing basic speaking, writing, listening, and reading skills, as well as awareness of French and Francophone cultures. Three semesters are required to fulfill the foreign language requirement. Credit not given for F117-F118-F119 and F131-F132.

F131-F132 Intensive Beginning French I-II (5-5 cr.) Accelerated introductory language courses. Recommended for students with prior training in French or other Romance languages. Emphasis on developing basic speaking, writing, listening, and reading skills, as well as awareness of French and Francophone cultures. Credit not given for F131-F132 and F117-F118- F119.

F203 Second-Year Composition, Conversation, and Reading I (4 cr.) P: 8-10 credit hours of college-level French or placement by testing. A continuation of practice in the listening, reading, speaking, and writing of French.

F204 Second-Year Composition, Conversation, and Reading II (4 cr.) P: 11-14 credit hours of college-level French or placement by testing. Continuation of F203.

F296 Foreign Study in France (1-6 cr.) P: acceptance in an overseas study program in France. Credit for foreign study in French language and/or literature done at second-year level when no specific equivalent is available among departmental offerings.

F299 Special Credit (3-6 cr.) Francophones may, upon successful completion of F328 and another

upper-division French course, apply to the department for special credit.

F300 Lectures et analyses littéraires (3 cr.) P: F204 or equivalent. Preparation for more advanced work in French literature. Readings and discussion of one play, one novel, short stories, and poems as well as the principles of literary criticism and “explication de texte.”

F307 Masterpieces of French Literature (3 cr.) P: F300 or equivalent. Includes material from both classical and modern periods.

F326 French in the Business World (3 cr.) P: F204 or equivalent. Introduction to the language and customs of the French-speaking business world. Designed to help prepare students to take the examination for the *Certificat pratique de français commercial et économique* offered by the Paris Chamber of Commerce.

F328 Advanced French Grammar and Composition (3 cr.) P: F204 or equivalent. Study and practice of French thinking and writing patterns.

F330 Introduction to Translating French and English (3 cr.) P: F328 or consent of the department. A comparative study of the style and grammar of both languages, with focus on the difficulties involved in translating. Introduction to the various tools of the art of translation.

F331 French Pronunciation and Diction (3 cr.) P: F204 or equivalent. Thorough study of French phonetics and intonation patterns. Corrective drill. Includes intensive class and laboratory work. Oral interpretation of text.

F360 Introduction socio-culturelle a la France (3 cr.) P: F328 or equivalent. A study of France and its people through an examination of France's political and cultural development.

F371 Topics in French (3 cr.) Topics in French literature and culture will be explored from a variety of perspectives. The course will be given in English. It may be taken twice.

F380 French Conversation (3 cr.) P: F204 or equivalent. Designed to develop conversational skills through reports, debates, and group discussions with an emphasis on vocabulary building, mastery of syntax, and general oral expression. Both F380 and F480 may be taken for credit.

F396 Foreign Study in France (1-6 cr.) P: acceptance in an overseas study program. Credit for foreign study in French language or literature when no specific equivalent is available among departmental offerings. May be repeated for a maximum of 6 credit hours.

F402 Introduction to French Linguistics (3 cr.) P: F328 or consent of the instructor. Introduction to the structure of the French language: phonology, morphology, and syntax.

F410 French Literature of the Middle Ages (3 cr.) P: F300 or consent of the department. Introduction to Old French language and literature.

F421 Fourth-Year French (3 cr.) P: F328 or consent of the department. Advanced work in language with a focus on syntax.

F423 Craft of Translation (3 cr.) P: F328 or consent of instructor. Advanced course in translation. The problems and techniques of translating French/English and English/French using a variety of texts and concentrating on the use of various stylistic devices.

F428 Seventeenth-Century French Literature (3 cr.) P: F300 or consent of the department. Classical writers of prose, poetry, and plays such as Descartes, Pascal, Corneille, Moliere, La Fontaine, Racine, Mme. de Lafayette.

F430 Modern Short Narratives (3 cr.) P: F300 or consent of the department. Structural and interdisciplinary approaches to short French narratives of the modern period, eighteenth-century fiction (short stories, tales, etc.), and nonfiction (essays, commentaries, etc.).

F443 Nineteenth-Century Novel I (3 cr.) P: F300 or consent of the department. Stendhal, Balzac, and others.

F444 Nineteenth-Century Novel II (3 cr.) P: F300 or consent of the department. Flaubert, Zola, and others.

F450 Colloquium in French Studies (2-3 cr.) P: F300 or consent of the instructor. Emphasis is on topic, author, or genre.

F451 Le français des affaires (3 cr.) P: F326 or consent of the instructor. Investigates in depth some of the topics touched on in F326. Designed to help prepare students to take the examination for the *Diplôme supérieur de français des affaires* offered by the Paris Chamber of Commerce.

F452 La Civilisation et littérature québécoises (3 cr.) P: F300 or consent of the instructor. The study of the history of French Canadian literature and civilization from its origins down to the present leading to the “Quiet Revolution” as seen through the contemporary poetry, novel, and drama of Quebec.

F453 Littérature contemporaine I (3 cr.) P: F300 or consent of the department. Twentieth-century writers such as Gide, Proust, etc.

F454 Littérature contemporaine II (3cr.) P: F300 or consent of the department. Twentieth-century writers such as Camus, Sartre, etc.

F460 French Fiction in Film (3 cr.) P: F300 or consent of the department. Involves reading works of French fiction and studying them as works of literature, followed by the viewing of a film version of each work and the preparation of a comparative analysis of the two versions.

F461 La France Contemporaine (3 cr.) P: F328 or equivalent. France since 1945: political, social, economic, and cultural aspects.

F480 French Conversation (3 cr.) P: F328 or consent of instructor. Designed to develop conversational skills through intensive controlled conversation with an emphasis on the use of linguistic devices and the mastery of oral expression. Both F380 and F480 may be taken for credit.

F495 Individual Readings in French (1-3 cr.) P: consent of the instructor. For majors.

F496 Foreign Study in France (3-8 cr.) P: consent of chairperson. Course involves planning for research project during year preceding study abroad. Time spent in research abroad must amount to at least one week for each credit hour granted. Research paper must be presented by end of semester following foreign study. May be taken once only. Does not count as a 400 level course in residence for major or minor.

Graduate Courses

F507 Foreign Language Institute (1-6 cr.) Intensive interdepartmental course involving work or literature in contemporary civilization (in the foreign language), language practice, and discussions and demonstrations of important developments and concepts in methodology. Intended primarily for Master of Arts for Teachers degree students and for high schools teachers.

F575 Introduction to French Linguistics (3 cr.) An introduction to phonological, morphological, and syntactic structures of French, and to recent linguistic developments.

F580 Applied French Linguistics (3 cr.) Evaluation of language teaching methods according to recent claims in learning theory.

Courses for Graduate Reading Knowledge

F491 Elementary French for Graduate Students (3 cr.) Introduction to structures of the language necessary for reading, followed the reading in graded texts of a general nature. Open with consent of the instructor to undergraduates who have already completed the language requirement for the B.A. in another language. Credit not given for both F491 and any French course at the 100 level.

F492 Readings in French for Graduate Students (3 cr.) P: F491 or consent of instructor. Credit not given for both F492 and any French course at the 100 or 200 level.

German

Coordinator Professor Gabrielle Bersier

Professors Gabrielle Bersier, Giles R. Hoyt, John Barlow (Emeritus)

Lecturers Claudia Grossmann, Shirley Maggio

Adjunct Assistant Professor Ruth Reichmann

Academic Advising Cavanaugh Hall 501H, (317) 274-8246

The IUPUI German program trains students to achieve linguistic proficiency and intercultural competency in German. Linguistic proficiency is the ability to communicate orally and in writing about subjects of common knowledge in the target language. A step-by-step systematic progression of language courses aids students to achieve fluency in German and allows them later to concentrate on chosen areas of linguistic specialization.

To gain intercultural competency, students acquire a solid knowledge of contemporary life in the German-speaking countries and learn to compare their institutions, customs, and mentalities with contemporary U.S. culture. Students also gain intercultural competency through critical knowledge

of the historical and cultural movements and personalities that have had the most impact on contemporary culture in the German-speaking countries, especially Germany.

In addition, all students in the program have the option to study in a German-speaking country, Germany or Austria, for a limited or extended period of time, or to gain practical career experience in business or technology by working as an intern overseas or in a local international corporation.

Courses in German not only broaden students' cultural horizons by giving them immediate access to a key region of central Europe, but also prepare students for a variety of careers in international business communication, translation, travel, education, and technology exchange. By combining the study of another discipline with specialization in German, students can also prepare more thoroughly and adequately for interdisciplinary graduate studies.

Major in German

In addition to the area distribution requirements for the School of Liberal Arts, the major in German requires the following:

29 credit hours above 100 level, including at least one capstone language course (G431, G445, G465), one contemporary culture course (G365), at least one 400 level historical culture and literature course (G407, G408, G409, G410) and a student portfolio (G498). Other courses may also be selected on the basis of level of placement by test or course work, and/or focus of interest. They include ALL 200, 300 and 400 level courses, except courses taught in English.

Major Course Requirements

1. A minimum of one 400-level language course:
G423 The Craft of Translation (3 cr.)
G431 Advanced Business German (3 cr.)
G445 Fortgeschrittenes Deutsch: Grammatik (3 cr.)
G465 Fortgeschrittenes Deutsch: Kommunikation (3 cr.)
2. One contemporary culture course:
G365 Deutsche Kultur Heute (3 cr.)
3. A minimum of one 400-level historical culture and literature course:
G407 Mittelalter/Reformation/Barock (3 cr.)
G408 Deutsche Klassik und Romantik (3 cr.)
G409 19. Jahrhundert: Kultur und Literatur (3 cr.)
G410 20. Jahrhundert: Kultur und Literatur (3 cr.)
4. Student portfolio
G498 Individual Studies in German (1 cr.)

To help assess and showcase academic progress in German while at IUPUI, graduating majors will assemble and present a portfolio including a minimum of one written project completed for each of the major courses above the 100 level taken in residence at IUPUI.

International Study or Work Internship Option

G498 Individual Studies in German (1-5 cr.) 1-5 credit hours toward the major in German may be earned through individual study or international work internship abroad or locally. There is a 3-credit limit for one individual study or work project.

Minor in German

The minor in German language skills is for students who are interested in the German language as a tool of communication. Its emphasis is on competence in the skills of reading, writing, and understanding spoken German, as well as on conversational proficiency in German.

Requirements consist of 14 credit hours, to include G225 and G230 or G299, plus a minimum of 6 credit hours from courses at the 300 or 400 level taught in German.

Teacher Certification

Secondary School with a Major in German

The teaching major requires the completion of at least 36 credit hours, 30 credit hours in 300 and 400 level. For a detailed description of all requirements, see the German program coordinator and refer to the School of Education Undergraduate Program Bulletin.

Secondary School with a Minor in German

The teaching minor requires the completion of at least 24 credit hours, of which 18 credit hours must be in courses at the 300 and 400 level. For a detailed description of all requirements, see the German program coordinator and refer to the School of Education Undergraduate Program Bulletin.

Junior High/Middle School Certification

For details concerning certification with the primary area in German, or the supporting area in German for junior high/middle school teaching, see the German program coordinator.

Honors Program

Honors in German can be achieved either through an honors degree or through the H-Option in individual courses. The German program coordinator must be contacted before enrolling in honors work.

Honors Degree

Requirement A cumulative grade point average of 3.3, and a 3.5 grade point average in German courses. A total of 24 credit hours of course work must be earned with honors. At least 18 credit hours (out of the total 24) must be earned in German courses above the G119 or G132 level, and 6 credit hours must be in electives.

H-Option

Honors credit through the H-Option may be earned in (a) upper-division language courses (i.e., above G132), as well as (b) upper-division literature, film, culture, and topics courses offered for German credit.

Foreign Study

Any form of foreign study is highly recommended, and the department gives credit for such study wherever possible. Outstanding students with a substantial command of German, a GPA of 3.0 and a B average in German may apply for the Overseas Study academic year program in Freiburg, Germany, during their junior year. Up to 30 IU credit hours may be earned through the program. Semester programs are also available in Freiburg and a summer program is offered in Graz, Austria, for students who have completed through G225. In addition, students who completed first-year German may earn transfer credits

through an intensive three-week program in Oldenburg, Germany. Contact the German program or International Affairs.

Internship in Baden-Württemberg

Students in the Schools of Liberal Arts; Science, Engineering, and Technology; and Business may apply for a two-month internship with a German firm in southwestern Germany through the Department of German's Advanced Trainee Exchange Program, which is run in cooperation with the Ministry for Art and Science of Baden-Württemberg. Advanced standing, a minimum overall grade point average of 3.0, and German language skills are required. Each area of the exchange has a specific language requirement.

Other Activities

Delta Phi Alpha A chapter of the national German honorary society, Delta Phi Alpha, was established in 1981. Students meeting the qualification requirements may become eligible for induction to the chapter, Iota Lambda.

German Club The department sponsors a German Club, open to ALL interested students. Various topics are discussed and events of cultural interest are presented during the academic year.

Max Kade German-American Center In cooperation with several community organizations, the department operates a center for German-related activities in the Deutsche Haus-Athenaeum.

Undergraduate Courses

G095-G096 German for Reading Proficiency

(3-3 cr.) These courses stress mastery of passive vocabulary and recognition of grammatical forms needed for reading skills. Designed for students of science, technology, the professional schools, and for those desiring sufficient proficiency in reading and translating German to enable them to work with German materials in their fields. These courses do not fulfill the foreign language requirement of the School of Liberal Arts.

G117-G118-G119 Beginning German I-II-III

(3-3-4 cr.) Introductory courses for students who have not had prior training in German or who desire to study German at a pace slower than G131-G132. Three semesters are required to fulfill the 10-credit hour foreign language requirement. Credit is given only for the sequence G117-G118-G119 or the sequence G131-G132.

G131-G132 Intensive Beginning German I-II

(5-5 cr.) Intensive introduction to present-day German and selected aspects of German life. Intensive drills for mastery of phonology, basic structural patterns, and functional vocabulary. Credit is given only for the sequence G131-G132 or the sequence G117-G118-G119.

G134-G135 Introductory German for Business

I-II (3-3 cr.) Introductory courses for students and professionals in business and engineering, who need basic communicative skills for the workplace. In addition to the four basic language skills, intercultural communication and basic technical, business, and scientific vocabulary are introduced.

G225 Intermediate German I (4 cr.) P: G119, G132, or equivalent or placement by testing. Intensive

review of grammar. Further development of oral and written use of the language. Selections from contemporary German readings and media.

G230 Intermediate German II (4 cr.) P: G225 or equivalent or placement by testing. Review of grammar. Readings of modern German with stress on discussion in German. Writing of descriptive and expository prose.

G265 German Culture in English Translation (3 cr.) A survey of the cultural history of German-speaking countries, as well as of contemporary civilization, with an emphasis on individual aspects of culture traced through several epochs.

G299 German for Advanced Credit (3 or 6 cr.) A special-credit designation for advance-placed students. A student who places at the third-year level on the CEEB placement test and completes a course at the third-year level will be eligible for 6 hours of special credit in G299. A student who places in the second semester of the second year and completes a course at this level will be eligible for 3 hours of special credit in G299. A student who skips a sequential course in German (e.g., G131 to G225, G132 to G230, G225 to G300, or equivalent) is eligible to receive 3 hours of special credit in G299. If the grade earned in the course at which the student placed (through the CEEB or by skipping a sequential course) is an A, he or she will receive the grade of A for special credit in G299. If the grade earned is B or C, the student will receive the grade of S for special credit in G299.

G300 Deutsch: Mittelstufe I (3 cr.) P: G230 or equivalent or placement by testing. Comprehensive review of grammatical points introduced in G117 through G230. Reading proficiency, systematic vocabulary building, composition, and discussion through the assignments of literary and nonliterary texts. Conducted in German.

G330 Deutsch: Mittelstufe II (3 cr.) P: G300 or equivalent. Advanced oral and written communication. Study of selected advanced grammatical topics. Reading of primarily nonliterary texts. Conducted in German.

G331 Business German I (3 cr.) P: third-year language proficiency or consent of instructor. Emphasis on acquisition and use of business vocabulary, idiom, and style. Translating, reading, and writing skills are developed using constructions common to business German, as well as current materials (reports, journals) in the field.

G333 German Translation Practice (3 cr.) P: third-year proficiency or consent of instructor. Introduction to the theory and practice of translation. Discussion of techniques and stylistic approaches. Emphasis on German/English translation using a variety of texts, including technical texts, business communication, and texts on current topics.

G340 Deutsch: Schreiben und Sprechen (3 cr.) P: G230 or equivalent. Further development of composition, conversation, and diction; review of grammar.

G355 Theater Spielen (3 cr.) P: third-year proficiency or consent of instructor. This combined

reading, discussion, pronunciation, and performance course provides an applied introduction to contemporary German theater and drama, along with intensive practice of oral language skills.

G365 Deutsche Kultur Heute (3 cr.) P: third-year proficiency or consent of instructor. A critical investigation of contemporary culture in the German-speaking countries, including institutions and major personalities, customs, traditions, changing mentalities, and lifestyles as they compare with contemporary U.S. culture. Taught in German.

G370 German Cinema (3 cr.) No knowledge of German required. Survey of the German cinema from the films of expressionism and the Weimar Republic through the Nazi period to the present. Emphasis on film as a form of narrative art and on the social and historical conditions of German film production. Offered in English concurrently with G371.

G371 Der deutsche Film (3 cr.) P: third-year proficiency or equivalent. Survey of the German cinema from the films of expressionism and the Weimar Republic through the Nazi period to the present. Emphasis on film as a form of narrative art and on the social and historical conditions of German film production.

G381 German Literature to 1750 in English Translation (3 cr.) No knowledge of German required. Major works and writers of German literature in the Medieval, Reformation, Renaissance, and Baroque periods. Offered in English concurrently with G407.

G382 Classicism and Romanticism in English Translation (3 cr.) No knowledge of German required. Major works and writers of German literature, 1750-1830, to include the periods of the Enlightenment, Storm and Stress, Classicism, and Romanticism; representative writers such as Schiller, Goethe, Kleist, and the Grimm brothers.

G383 Nineteenth-Century German Literature in English Translation (3 cr.) No knowledge of German required. Works and writers of German literature, 1830-1900. Analysis of such concepts as realism, naturalism, and neoromanticism, their theories and styles; exemplary writers such as Buechner, Heine, Nietzsche, Hauptmann, and others. Offered in English concurrently with G409.

G384 Twentieth-Century German Literature in English Translation (3 cr.) No knowledge of German required. Major works and writers of German literature from the turn of the century to the present, with emphasis on Rilke, Thomas Mann, Kafka, and Brecht. Offered in English concurrently with G410.

G391 German Colloquium in English Translation II (3 cr.) No knowledge of German required. May be taken as an elective by other students. Emphasis on one topic, author, or genre in German literature, or other aspect of German culture. No credit given toward German major.

G401 Deutsche Kultur in Amerika (3 cr.) P: third-year proficiency or consent of instructor. Advanced undergraduate course. Its purposes are to provide an overview of the cultural heritage of German-Americans and to assist students in

researching German heritage with a view toward developing research skills with original materials. The course will basically be in a seminar format with students actively participating in discussions and presentations.

G407 Knights, God, and the Devil (3 cr.) The purpose of this course is to provide insight into the development of early German cultural life by reading and analyzing texts of the periods covered. Lecture materials will cover historical and cultural background. Period texts will be placed in contexts of other cultural phenomena, including art and music. As much reference as possible will be made to the European context of the emerging German literacy language.

G408 Deutsche Klassik und Romantik (3 cr.) P: third-year proficiency or consent of instructor. Introduction to the cultural capital of courtly Germany, Weimar, and its relationship to German Romanticism, including readings and discussions of works by Goethe, Schiller, Kleist, Tieck, and the Grimm brothers. Literary examples are accompanied by pictorial, filmic, and musical illustrations. Taught in German.

G409 19. Jahrhundert: Kultur und Literatur (3 cr.) P: third-year proficiency or consent of instructor. Introduction to the age of modernization and unification of the German states during the 19th century, including discussions of works by authors and personalities of major cultural influence, such as Heine, Büchner, Marx, Wagner, Nietzsche, and Schnitzler. Literary examples are expanded with pictorial, filmic, and musical illustrations. Taught in German.

G410 20. Jahrhundert: Kultur und Literatur (3 cr.) P: third-year proficiency or consent of instructor. Survey of cultural and intellectual life of the German-speaking countries of the 20th century, through the reading of exemplary literary works. Discussion of literary movements from the turn of the century until the present. Texts will be analyzed within the context of other cultural phenomena, including film and music. Conducted in German.

G423 The Craft of Translation (3 cr.) P: G333 or consent of the instructor. Advanced course in German-English translation providing intensive translation practice in many text categories: commercial and economic translations, scientific, technical, political, and legal texts. Applied work combined with study of theory and methodology of translation, comparative structural and stylistical analysis and evaluation of sample translations. Use of computer-assisted translation management.

G431 Advanced Business German (3 cr.) P: fourth-year proficiency or consent of the instructor. Focus is on the contemporary business idiom and current economic issues facing Germany. Active practice of specialized business language, both for oral and written communication.

G445 Oberstufe: Grammatik (3 cr.) P: fourth-year proficiency or consent of instructor. Survey and practice of complex grammatical structures; systematic expansion of vocabulary. Discussion and writing based on current materials, such as newspapers, films, and radio programs.

G465 Oberstufe: Kommunikation (3 cr.) P: fourth-year proficiency or consent of instructor. Systematic development of writing and speaking skills, proceeding from exercises to specific forms, such as *Brief, Aufsatz, Referat, Vortrag*. Focus on usage and style.

G490 Das deutsche Kolloquium (3 cr.) P: fourth-year German language proficiency or consent of instructor. Concentration on a specific topic, genre, or author in German literature, film, or other aspect of culture.

G491-G492 Elementary German for Graduate Students I-II These courses are taught concurrently with G095-G096 and prepare students for the German reading proficiency exam.

G498 Individual Studies in German (1-5 cr.) P: consent of the program coordinator.

Graduate Courses

G507 Foreign Language Institute (1-6 cr.) Intensive interdepartmental course involving language laboratory and other audiovisual equipment and techniques, lecture, assignments in contemporary civilization (in the foreign language), and discussions of classroom use of applied linguistics. May be repeated for a maximum of 6 credit hours.

G563 German Culture Studies I (3 cr.) The formation of cultural traditions in the German-speaking countries prior to the twentieth century.

G564 German Culture Studies II (3 cr.) Culture of the German-speaking countries in the twentieth century.

V605 Selected Topics in German Studies (2-4 cr.; 12 cr. Max.)

Japanese Studies

Coordinator Associate Professor Reiko Yonogi
Academic Advising Cavanaugh Hall 501K, (317) 274-8291

Japanese studies is an interdisciplinary field that includes the study of language, culture, and literature of Japan. Courses are offered in language, literature, and culture. The major objectives of the program are (1) to provide students with adequate ability to understand, speak, read, and write Japanese and (2) to give students a general introduction to Japanese culture, literature, and society. Courses offered in English provide students who have little or no knowledge of Japanese with an introduction to various facets of Japanese studies.

Minor in Japanese

The minor in Japanese studies may be of particular interest to students in business, social sciences, and other languages and interdisciplinary subjects. It includes both language and literature and other Japanese area studies courses.

The minor in Japanese studies consists of 15 credit hours in Japanese studies or related courses approved by the program coordinator, excluding courses at the 100 level. At least 6 credit hours taken toward the minor must be at the 300 level or above. The following courses fulfill the requirements. Prerequisite: completion of first-year college Japanese or equivalent.

E231 Japan: The Living Tradition (3 cr.)

E351 Studies in East Asian Culture (3-6 cr.)

E472 Modern Japanese Fiction (3 cr.)

G367-G368 History of Japan I-II (3-3 cr.)

J201-J202 Second-Year Japanese I-II (3-3 cr.)

J301-J302 Third-Year Japanese I-II (3-3 cr.)

J393-J394 Japanese Literature in Translation I-II (3-3 cr.)

J401-J402 Fourth-Year Japanese I-II (3-3 cr.)

Foreign Study

Indiana University offers mature and motivated undergraduates direct IU credit for study for an academic year at the Center for Japanese Studies at Nanzan University in Nagoya, Japan. This program emphasizes intensive study of Japanese in combination with courses in English on various aspects of Japanese culture and society and the applied arts. This program is open to students of all majors who have completed at least fourth-semester Japanese and have attained a 3.0 GPA. In addition, students with first-year proficiency may apply to the semester program at Kanda University of International Studies in Tokyo.

Courses in Japanese Studies

J117-J118-J119 Basic Japanese I-II-III (3-3-4 cr.) Introductory courses for students who have not had prior training in Japanese or who desire to study Japanese at a pace slower than J131-J132. Three semesters are required to fulfill the 10 credit hour foreign language requirement. Credit is given only for the sequence J117-J118-J119 or the sequence J131-J132. Students are introduced to present-day Japanese with drills for mastery of phonology, basic structural patterns, and functional vocabulary.

J131-J132 Beginning Japanese I-II (5-5 cr.) Introductory language courses designed for students who have not had any prior training in Japanese. Drills for basic skills in listening, speaking, reading, and writing of Japanese.

J201-J202 Second-Year Japanese I-II (3-3 cr.) P: J131-J132 or equivalent. A continuation of practice in the listening, speaking, reading, and writing of Japanese.

J301-J302 Third-Year Japanese I-II (3-3 cr.) P: J201-J202 or equivalent. Review of grammatical points acquired in the first and second year of Japanese. More advanced level of speaking, reading, writing, and listening proficiency.

J310 Japanese Conversation (3 cr.) P: J202 or equivalent. Designed to develop conversational skills through controlled linguistic patterns, reports, and group discussion. More advanced level of oral communication.

J330 Business Japanese (3 cr.) P: J202 or equivalent. Emphasis on acquisition and use of business vocabulary, idiom, and style. Oral practice is emphasized.

J393-J394 Japanese Literature in Translation I-II (3-3 cr.) Survey of the classical genres of Japanese literature. I: Ancient period to end of Momoyama. II: Tokugawa and modern periods.

J401-J402 Fourth-Year Japanese (3-3 cr.) P: J301-J302 or equivalent. Advanced level of communications skills in speaking and writing. Study

of advanced grammar and reading of newspaper articles.

J498 Individual Studies in Japanese (1-3 cr.) P: consent of department. May be repeated up to a maximum of 6 credit hours.

E231 Japan: The Living Tradition (3 cr.) An introduction to the patterns of Japanese culture: society, history, visual arts, literary masterpieces, performing arts, and living religious traditions.

E351 Studies in East Asian Culture (3 cr.) Selected issues and problems of importance to the understanding of East Asian culture, taught within one of the humanistic disciplines. May be repeated once for credit.

E472 Modern Japanese Fiction (3 cr.) The novels, short stories, and theories of fiction of prominent Japanese writers of the modern period.

Spanish

Coordinator Associate Professor Enrica Ardemagni

Associate Professors Marta Antón, Enrica Ardemagni, Herbert Brant, Nancy Newton

Assistant Professor Gustavo Garcia

Associate Professor Emerita Lucila Mena

Lecturers Ellen Brennan, Sarah Carrig, Amy Bomke-Keating

Academic Advising Cavanaugh Hall 501 E, (317) 274-0062

Mission

The mission of the Spanish program at IUPUI is to assist students in achieving proficiency in the Spanish language and to lead them to an understanding and an appreciation of the wide range of Hispanic cultures. To meet this goal, the Spanish Program offers introductory and advanced instruction in language, linguistics, culture and civilization, literature, and applied language studies.

The introductory and intermediate sequences of courses are designed to provide non-majors with an exploration into Spanish language and Hispanic culture as an essential component of a liberal arts education. The sequences aim to develop an interest in the language and the peoples who speak it, as well as to prepare students for a variety of careers with international dimensions.

The advanced curriculum prepares students to communicate orally and in writing about subjects in the target language, giving them the foundation for their future career experiences and to prepare them for graduate study. Through investigation into the different content areas that comprise the study of Spanish, the program contributes to the academic and personal development of students in multiple ways. The study of Spanish gives students the ability 1) to communicate with Spanish-speakers in the United States and abroad; 2) to understand better the cultural manifestations of other peoples; 3) to gain greater insight into the nature of language itself as well as their own language; 4) to reinforce knowledge gained from other disciplines and connect it with the study of a second language; and, 5) to develop a sense of a multilingual international community of which they form an integral part. The Spanish program

curriculum incorporates the Principles in Undergraduate Learning and culminates in the capstone experience.

Considering the rapidly growing Spanish-speaking population in the United States, a major in Spanish is becoming increasingly desirable in the workplace. The major in Spanish can prepare students for a wide variety of careers in such fields as education, social services, international business and finance, government service, international communications and information services, and the travel and hospitality industry.

For detailed information about the program, visit the Department of Foreign Languages and Cultures homepage on the Web: www.iupui.edu/~flac.

Major in Spanish

In addition to fulfilling the general group requirements for a B.A. degree established by the School of Liberal Arts, the Spanish major must complete 30 credit hours in courses at the 300 and 400 level (12 of which must be completed at IUPUI) with a grade of C (2.0) or better. Required courses at the 300 level are: S311, S313, S320, S360, and S363. Required courses at the 400 level are: one course in literature, one course in culture and civilization, one course in linguistics, one elective, and the senior capstone seminar. Students must have senior status to register for the capstone seminar.

Capstone Course

Majors must register for S498, Capstone Seminar in Spanish. Working with a director, students will prepare a learning portfolio integrating their students' undergraduate study through writing and reading projects and oral presentations.

Minor in Spanish

The minor in Spanish requires 13 credit hours of course work (6 credit hours must be completed at IUPUI), with a grade of C (2.0) or better. Required courses are: S204, S313, S317, and 3 additional credit hours from the 300-400 level.

Teacher Certification

Students who wish to obtain certification on the secondary level must complete all professional courses required by the School of Education and should work with the School of Education advisor as well as with the Spanish program advisor.

Teaching Major Requirements

The teaching major in Spanish requires the completion of a minimum of 36 credit hours beyond the 100 level, including 30 credit hours in 300 and 400 level courses. The following courses are required: S311, S313, S317, S320, S360, S363, S428. Native speakers may receive a waiver for S317. Please consult with the Spanish program advisor.

Teaching Minor Requirements

The teaching minor in Spanish requires the completion of a minimum of 24 credit hours beyond the 100 level, including the following required 21 credit hours in 300 and 400 level courses: S311, S313, S317, S320, S360, S363, and S428.

Master of Arts in Teaching Spanish

Description

This graduate program is a collaboration between IUPUI and the University of Salamanca in Spain. It leads to the M.A.T. in Spanish, awarded by IUPUI, and to a distinctive international degree entitled *Máster Interuniversitario Hispano-Norteamericano en la Lengua Española y las Culturas Hispanas*, awarded by the University of Salamanca. The University of Salamanca has a well-developed curriculum for foreign students who aspire to teach Spanish, and its *Cursos para profesores* enjoy a high level of academic prestige around the world.

Objectives

This international course of study has been designed specifically for teachers of Spanish. It provides graduate level course work in the Spanish language, Hispanic cultures, teaching methodology, applied linguistics, and Hispanic art and literature. It provides for the professional development of Spanish teachers through the improvement of their language and teaching skills, and it will enable their career advancement. Graduates of the program will in turn contribute to better teaching of Spanish in Indiana schools, improving the language skills and the cultural awareness of Indiana students.

Design

The degree program consists of 36 credits and requires two July summer programs at the University of Salamanca. The remainder of the course work must be completed in residence at IUPUI. The M.A.T. may be completed in three academic semesters and two summer sessions.

Course Work at IUPUI (to be completed during the academic year)

- S513 Introduction to Hispanic Sociolinguistics (3 cr.)
- S515 Acquisition of Spanish as a Second Language (3 cr.)
- S517 Methods of Teaching College Spanish (3 cr.)
- S518 Studies in Latino and Spanish American Culture (3 cr.)
- S519 Practicum in the Teaching of Spanish (2 cr.)
- S680 Topics in Contemporary Spanish American Literature (3 cr.)
- S685 M.A.T. Thesis (4 cr.)

Course Work at the University of Salamanca (to be completed in 2 July sessions)

- S521 Teaching Spanish Grammar and Vocabulary (4 cr.)
- S522 Teaching the Four Language Skills (3 cr.)
- S523 Teaching Spanish Culture (3 cr.)
- S524 Teaching Contemporary Spanish Literature and the Other Arts (3 cr.)
- S525 Spanish Linguistics for Teachers (2 cr.)

Admission Requirements

- 1) A bachelor's degree from an accredited college or university, with a minimum grade point average of 3.0 (on a 4.0 grading scale) in the student's undergraduate major, documented by an official transcript. Applicants are expected to have a B.A. in Spanish, but admission is also considered for those who otherwise demonstrate the competency

necessary for successful graduate work in Spanish. Students must have knowledge of Spanish phonetics, linguistics, and literary genres and periods. Students with deficiencies may be admitted on a conditional basis until they complete the relevant undergraduate courses in these areas.

- 2) a. Personal statement in Spanish explaining why the applicant wants to pursue this degree.
b. Tape including applicant's oral sample of 10-15 minutes of spontaneous speech in Spanish.
c. An essay on some aspect of Spanish culture, literature, linguistics, or pedagogy.
- 3) Proficiency in the Spanish language, which may be demonstrated by the Basic Diploma in Spanish issued by the Spanish Ministry of Education, Culture and Sport. The official exam determining this proficiency is offered once a year at IUPUI.
- 4) The Graduate Record Examination (GRE) General Test with a minimum score of 600 in at least one of the three areas. Applicants are encouraged to take the examination by December of the year before admission.
- 5) Three letters of recommendation. At least two of these should be from professors.
- 6) For foreign students, the university requires a minimum TOEFL score of 550. Students who do not achieve this score may be admitted to the university conditionally and may be required to take English as a Second Language courses through the Department of English. While taking these courses they will be allowed to register for a maximum of 6 credit hours in the M.A.T. in Spanish.

Teacher Certification

Students seeking teacher certification for teaching Spanish in elementary or secondary school must complete the professional education courses required in the School of Education.

Financial Assistance

Various sources of financial assistance are available to graduate students at IUPUI. Applicants should contact the Office of Scholarships and Financial Aid, 103 Cavanaugh Hall, IUPUI, 425 University Boulevard, Indianapolis, IN 46202-5140, Tel. (317) 274-4162.

Study Abroad Programs

Indiana University administers or co-sponsors a variety of programs that permit students to live and study in a Spanish-speaking country as part of their normal degree programs. Students receive IU credit and grades for program participation and can apply most financial aid to program costs. These include an academic-year program in Madrid, Spain, and semester programs in the Spanish cities of Alicante, Madrid, and Seville, and in Santiago, Chile, and a spring semester program for business majors in Monterrey, Mexico. Six-week summer programs are offered in Cuernavaca, Mexico, for intermediate students; in Salamanca, Spain, for students who have completed two years of Spanish; and in Guanajuato, Mexico, for advanced students. In addition, IUPUI offers an exchange opportunity with the University of Costa Rica for a semester or year-long exchange (students receive transfer credits for the Costa Rica program). Graduate credit is available through the Salamanca program.

Students majoring in any discipline are encouraged to study abroad. All programs require applicants to have an overall B average. Some programs require as little as one semester's previous study of Spanish, while others are appropriate for students in advanced Spanish courses.

Students interested in study opportunities in Spanish-speaking countries should visit the Office of International Affairs, Union Building 203, IUPUI, (317) 274-7000 or the Department of Foreign Languages and Cultures office in CA405.

The Spanish Resource Center at IUPUI

The Spanish Resource Center is sponsored by the Embassy of Spain Education Office in order to assist and further Spanish education in the United States, primarily in central Indiana. It is open for use by professors, teachers, and students of Spanish, along with the general public. Materials and resources available to check out are books, films, magazines, slides, and cassettes. The Spanish program and the Spanish Resource Center also sponsor several activities throughout the academic year, such as a free conversation hour, a film series in Spanish, and an Immersion Day for teachers that focuses on the culture of Spanish-speaking countries. The center is located at Cavanaugh Hall 408 on the IUPUI campus, (317) 278-1210 or (317) 278-1211.

DELE Exams

IUPUI is an official testing site for the DELEs, Diplomas of Spanish as a Foreign Language, issued by Spain's Ministry of Education. They offer official accreditation of mastery of the Spanish language for citizens of countries in which Spanish is not the official language. The examinations are offered at three levels (intermediate, high intermediate, and advanced), and consist of five sections: reading comprehension, written expression, listening comprehension, grammar and vocabulary and oral expression. The diplomas are recognized by official institutions of Spanish-speaking countries, by corporations, chambers of commerce, and educational institutions in the United States. Applicants must provide proof of citizenship in a country in which Spanish is not the official language (anyone with a United States passport is eligible). Applicants for the advanced level must be sixteen years of age or older; there is no minimum age for the intermediate or the high intermediate levels. For more information, contact 274-0062, or manton@iupui.edu. General information on the exams and sample test formats and prices may be found at www.cervantes.es or cvc.cervantes.es/aula/dele.

Other Activities

Sigma Delta Pi A chapter of the national Spanish honorary society, Sigma Delta Pi, was established in 1990. Students meeting the qualification requirements may be eligible for induction into the IUPUI chapter, Sigma Epsilon.

Spanish Club The Spanish program sponsors a Spanish Club, open to all interested students. Various events of cultural and academic interest are presented during the academic year.

Undergraduate Courses

S117-S118-S119 Beginning Spanish I-II-III (3-3-4 cr.) Introductory language sequence of courses designed for students with no prior training in Spanish. Emphasis on developing basic speaking, writing, listening, and reading skills as well as awareness of Hispanic culture. Credit not given for S117-S118-S119 and S131-S132.

S131-S132 Intensive Beginning Spanish I-II (5-5 cr.) Intensive introductory language sequence of courses. Recommended for prospective majors and for students with prior training in Spanish or other Romance languages. Emphasis on developing basic speaking, writing, listening, and reading skills as well as awareness of Hispanic cultures. Credit not given for S117-S118-S119 and S131-S132.

S203 Second-Year Spanish I (4 cr.) P: 8-10 credit hours of college-level Spanish or placement by testing. A continuation of training in the four skills: listening, reading, speaking, and writing.

S204 Second-Year Spanish II (4 cr.) P: 10-14 credit hours of college-level Spanish or placement by testing. Continuation of S203.

S298 Second-Year Spanish (3 or 6 cr.) Non-native students may receive a maximum of 16 special credits by completing a 300-level course with a C or better (S298 plus 10 hours at 100 level). Native speakers are eligible for a maximum of 6 hours of "S" credit (S298) upon completion of S313 with a C or better.

S311 Spanish Grammar (3 cr.) P: S204 or equivalent. This course is designed to integrate the four basic language skills into a review of the major points of Spanish grammar. Course work will combine grammar exercises with brief controlled compositions based on reading assignments and class discussion in Spanish. Spanish exercises will be corrected and discussed in class.

S313 Writing Spanish (3 cr.) P: S204 or equivalent. Grammar review, composition, and themes in Spanish.

S315 Spanish in the Business World (3 cr.) P: S204 or equivalent. Introduction to the technical language of the business world with emphasis on problems of style, composition, and translation in the context of Hispanic mores.

S317 Spanish Conversation and Diction (3 cr.) P: S204 or equivalent. Intensive controlled conversation correlated with readings, reports, debates, and group discussions, with emphasis on vocabulary usage, word order, tense relationships, and linguistic devices. Class time is the same as for a 5 credit hour course. May be repeated once for credit.

S319 Spanish for Health Care Personnel (3cr.) P: S204 or equivalent. A course specifically designed for those interested in learning Spanish in the context of material related to health care systems. Emphasis placed on vocabulary necessary for communicative competence in the medical fields.

S320 Spanish Pronunciation and Diction (3 cr.) P: S204 or equivalent. Thorough study of Spanish phonetics and intonation patterns. Corrective drills.

Includes intensive class and laboratory work. Oral interpretation of texts.

S360 Introduction to Hispanic Literature (3 cr.) P: S204 or equivalent and S313. Using fiction, drama, and poetry from both Spain and Latin America, this course introduces strategies to increase reading comprehension and presents terms and concepts useful in developing the critical skills of literary analysis.

S363 Introduction to Hispanic Culture (3 cr.) P: S204 or equivalent. Introduction to the cultural history of Spanish-speaking countries with emphasis on its literary, artistic, social, economic, and political aspects.

S407 Survey of Spanish Literature I (3 cr.) P: S360 or equivalent. A historical survey that covers major authors, genres, periods, and movements from the Spanish Middle Ages through the Baroque period of the seventeenth century. Readings include prose works, poetry, and drama.

S408 Survey of Spanish Literature II (3 cr.) P: S360 or equivalent. A historical survey of Spanish literature that covers the main current of Spain's literary history in the eighteenth, nineteenth, and twentieth centuries. Readings in prose, poetry, and drama by Larra, Pérez Galdós, Unamuno, García Lorca, and other representative writers.

S411 Spanish Culture and Civilization (3 cr.) P: S204 or equivalent. A course to integrate historical, social, political, and cultural information about Spain.

S412 Latin American Culture and Civilization (3 cr.) P: S204 or equivalent. A course to integrate historical, social, political, and cultural information about Spanish America.

S419 Spanish for Law Enforcement (3 cr.) This course is designed to help students in the specialized vocabulary that law enforcement professionals need in the course of their daily work. It includes sight and written translation of legal documents, court records, and the language of the courtroom and courtroom procedures. Intensive classroom practice and language laboratory exercises focus on use of specialized vocabulary to help prepare students for communicative competence in this terminology. This course also provides students with information about how to become certified court interpreters, and reviews the federal standards for interpreters.

S421 Advanced Grammar and Composition (3 cr.) Selected grammar review and intensive practice in effective use of the written language.

S423 The Craft of Translation (3 cr.) P: S313 or consent of instructor. Basic introductory course in translation. The problems and techniques of Spanish/English and English/Spanish translation using a variety of texts and concentrating on such critical areas as stylistics, tone, rhythms, imagery, nuance, allusion, etc.

S426 Introduction to Spanish Linguistics (3 cr.) P: S320. This course presents general aspects of Spanish linguistics: traditional, descriptive, historical, and dialectal. It is conducted entirely in Spanish.

S428 Applied Spanish Linguistics (3 cr.) P: S320 or consent of instructor. General aspects of Spanish

phonology, morphology, syntax, and semantics as they bear on teaching.

S431-S432 Survey of Spanish Poetry I-II (3-3 cr.) P: S360 or equivalent. Spanish poetry from its beginnings to contemporary times. Works of medieval, Renaissance, romantic, and contemporary roots.

S445 Major Dramatists of the Golden Age I (3 cr.) P: S360 or equivalent. Lectures outlining the development of the theater during the Golden Age. Readings selected from the works of Lope de Vega, Tirso de Molina, Juan Ruiz de Alarcón, Calderón.

S450 Cervantes' *Don Quixote* I (3 cr.) P: S360 or equivalent. Intensive reading of *Don Quixote*, with account of the author's life and thought and discussions of the development of the novel to Cervantes' time.

S455 Modern Spanish Drama I (3 cr.) P: S360 or equivalent. Selected readings from the works of representative authors of the eighteenth, nineteenth, and twentieth centuries, with lectures on development of the Spanish theater.

S457 Modern Spanish Novel I (3 cr.) P: S360 or equivalent. Reading of representative nineteenth- and twentieth-century novels and study of development of the novel.

S461 Contemporary Spanish Literature I (3 cr.) P: S360 or equivalent. Selected twentieth-century novels, plays, and essays. Historical background and literary movements.

S470 Women and Hispanic Literature (3 cr.) P: S360 or equivalent. The Hispanic woman within her cultural context through literary texts. Topics such as women authors, characters, themes, and feminist criticism.

S471-S472 Spanish-American Literature I-II (3-3 cr.) P: S360 or equivalent. Introduction to Spanish-American literature.

S477 Twentieth-Century Spanish-American Prose Fiction (3 cr.) P: S360 or equivalent. Close readings of representative novelists and short story writers, including established authors (Borges, Asturias, Arreola, Carpentier) and promising young writers.

S491 Elementary Spanish for Graduate Students (3-4 cr.; 3 cr. graduate; 4 cr. undergraduate) Introduction to the structure of the language necessary for reading in graded texts of a general nature. Open with consent of the instructor to undergraduates who have already completed the language requirement for the B.A. in another language.

S493 Internship Program in Spanish (3 cr.) P: junior standing with consent. Students work in businesses, organizations, or institutions applying their skills in Spanish in order to gain awareness of the uses of Spanish in the workplace. They record and analyze their experiences through logs and meetings with the internship director and write a paper.

S494 Individual Readings in Hispanic Studies (1-3 cr.) Topic to be selected by the student with the consent of the department. May not be taken for graduate credit.

S495 Hispanic Colloquium (3 cr.) Topic to be selected by the department member offering the course. May be taken twice for credit as long as the topic is different.

S496 Foreign Study in Spanish (3-6 cr.) P: consent of chairperson. Planning of a research project during the year preceding the summer abroad. Time spent in research abroad must amount to at least one week for each credit hour granted. Research paper must be presented by the end of the semester following foreign study.

S498 Capstone Seminar in Spanish (3 cr.) A senior-level course for all Spanish majors that integrates students' undergraduate study. Students showcase academic progress through a portfolio, a reflective journal, discussions with the faculty capstone director, and a final presentation to students and faculty.

Courses in Literature in Translation

Literature-in-translation courses will be offered if the need for more Foreign Culture Option courses becomes evident.

S230 Cervantes' *Don Quixote* in Translation (3 cr.) Detailed textual analysis of Cervantes' masterpiece, with readings and class discussion on its relationship to the Renaissance and the development of the world novel.

S231 Spanish-American Fiction in Translation (3 cr.) Representative prose fiction of Spanish America. Background lectures on the evolution of the short story and novel. Readings and discussions will concentrate on the fiction of the twentieth century.

S240 Modern Spanish Literature in Translation (3 cr.) Readings from authors such as Unamuno, Cela, García Lorca, Jiménez, Pérez de Ayala, and Ortega y Gasset.

S241 Golden Age Literature in Translation (3 cr.) Masterpieces of Spanish literature of the sixteenth and seventeenth centuries. Representative authors will include: Lope de Vega, Cervantes, Garcilaso, Quevedo, Fray Luis de León, San Juan de la Cruz, and Góngora.

Graduate Courses

S507 Foreign Language Institute (3 cr.) Intensive interdepartmental course involving language laboratory and audiovisual equipment and techniques, lecture, assignments in contemporary civilization (in the foreign language), and discussion of classroom use of applied linguistics. Taught only in the summer. Intended primarily for teachers. May be repeated for a maximum of 6 credit hours.

S513 Introduction to Hispanic Sociolinguistics (3 cr.) P: S320, S426, or instructor's consent. This course examines the relationship between language and society in the Spanish-speaking world. It surveys a wide range of topics relevant to Spanish: language as communication, the sociology of language, and linguistic variation. The course is conducted entirely in Spanish.

S515 The Acquisition of Spanish as a Second Language (3 cr.) P: S426, S428, or instructor's consent. This course is an introduction to the acquisition of Spanish as a second language. We will

survey a selection of studies exploring topics that range from the development of second language (Spanish) grammars, to second language production and comprehension, input processing, and the acquisition of pragmatic and sociolinguistic competence.

S517 Methods of Teaching College Spanish (3 cr.) P: S428 or instructor's consent. This course on communicative language teaching takes as its point of departure the body of research on second language development. We extrapolate from this base principles and parameters to guide classroom instruction. We cover a full range of topics from grammar and input to spoken and written language.

S518 Studies in Latino and Spanish American Culture (3 cr.) Advanced study of cultural phenomena produced in Latin America and among U.S. Hispanics. The course focuses on belief systems, artistic production, laws, customs, and other socially determined behaviors. Topics such as colonization, popular culture, communication, art, religious syncretism, and native indigenous cultures will be explored.

S519 Practicum in the Teaching of Spanish (2 cr.) P: S517 or instructor's consent. Practical application of the teaching methodology explored in S517, Methods of Teaching College Spanish. Students will undertake teaching projects supervised by a graduate faculty member in Spanish and meet with their mentors to assess their teaching objectives, techniques, materials and outcomes.

S521 Teaching Spanish Grammar and Vocabulary (4 cr.) This course reviews the fundamental issues of Spanish grammar from the perspective of teaching the language to non-native speakers and analyzes concepts and methods for learning and teaching vocabulary. Teaching strategies will be discussed and classroom materials will be provided.

S522 Teaching the Four Language Skills (3 cr.) This course addresses the four language skills of listening, speaking, reading and writing as methodological issues in the teaching of Spanish to non-native speakers. Specific learning strategies will be discussed and classroom materials will be provided.

S523 Teaching Spanish Culture (3 cr.) This course offers an analysis of cultural themes of daily life in contemporary Spain and an overview of the historical trajectory of the nation. It also provides a complete panorama of the social, political and economic characteristics of contemporary, democratic Spain.

S524 Teaching Contemporary Spanish Literature and the Other Arts (3 cr.) This course introduces tendencies and authors of contemporary Spanish literature and focuses on the analysis of literary texts when used in Spanish classes for non-natives. It also provides a broad introduction to recent contributions in the fields of Spanish film, theater, painting, architecture, etc.

S525 Spanish Linguistics for Teachers (2 cr.) This course provides an overview of the evolution of Spanish from Latin so that Spanish teachers can better understand and explain numerous aspects of

contemporary Spanish to their students. It also provides an overview of geographical and social varieties of Spanish in the world.

S528 Translation Practice and Evaluation (3 cr.) A graduate course in the problems and techniques of Spanish/English and English/Spanish translation. Includes the practical aspects of translation from various texts (literary, technical, scientific, commercial, social) and evaluation of professional translations. Translation theory will be studied.

S680 Topics in Contemporary Spanish American Literature (3 cr.) Topics include poetry, drama, short story, novel and essay.

S685 M.A.T. Thesis (4 cr.) Students will identify a research theme and develop it under the guidance of a Director (IUPUI professor) and a Co-Director (University of Salamanca professor). The topic will be related to the teaching of Spanish language or to the teaching of an aspect of Hispanic culture. Minimum extension: 40 pages.

NOTE: All 400 level courses may be used for graduate credit, with the exception of S493, S494 and S498, which carry undergraduate credit only.

Additional Foreign Languages and Cultures Courses

Arabic

A117-A118-A119 Basic Arabic I-II-III (3-3-4 cr.) Introductory language course in modern standard Arabic as in contemporary literature, newspapers, and radio. Focus on grammar, reading, script, conversation, elementary composition, and culture.

A200-A250 Intermediate Arabic I-II (3-3 cr.) P: A131-A132. Grammar, reading, composition, conversation, and translation, using materials from classical, medieval, and modern literary Arabic.

Chinese

C117-C118-C119 Basic Chinese I-II-III (3-3-4 cr.) Introductory language course in Chinese with emphasis on comprehension and oral expression, grammar, reading, script, elementary composition, and culture.

C201-C202 Second-Year Chinese I-II (3-3 cr.) Both spoken and written aspects stressed.

C301-C302 Third-Year Chinese I-II (3-3 cr.) P: C201-C202. Intensive reading of modern Chinese writings. Course conducted in Chinese.

Italian

M117-M118-M119 Basic Italian I-II-III (3-3-4 cr.) Introductory language course in contemporary Italian. Focus on grammar, reading, conversation, elementary writing, and culture.

M200 Intermediate Italian (3 cr.) Intermediate study of contemporary Italian conversation, grammar, reading, and writing. Introduction to brief literary texts.

French

See "Foreign Languages and Cultures."

Geography

Chair Associate Professor Catherine Souch

Professor Frederick L. Bein

Associate Professors Timothy Brothers, Thomas Fedor, Catherine Souch

Assistant Professor Owen Dwyer, Jeffrey Wilson

Adjunct Professors Associate Professor James Baldwin, Assistant Professor Robert Beck, Associate Professor Greg Lindsey, Associate Professor John Ottensmann

Lecturer Nadine Martin

Academic Advising: Cavanaugh Hall 213, Phone: (317) 274-8877; fax: (317) 274-2347; e-mail: geogdept@iupui.edu. Department Web address: www.iupui.edu/~geogdept

Geography, like history, is a way of looking at the world. Whereas historians study variation through time, geographers study variation through space: how and why the earth's natural and human features vary from place to place. Underlying this spatial approach are such recurring themes as spatial diffusion of people, goods, and ideas; the significance of relative location in human interaction; the power of place in human conscience; and the interaction of physical and human processes to create characteristic landscapes. Geographers work at the intersection of social and natural sciences, using the concepts and methods of both to examine human-environmental relationships in their full complexity. This integrative approach is a hallmark of geography and one of its main attractions. Geographers can be found in a great variety of positions, often not specifically identified as geographic: environmental management, urban planning, conservation, recreation and tourism, transportation planning, international affairs, and many others.

Major in Geography

The Bachelor of Arts degree in geography provides a general introduction to the philosophy, content, and methods of the discipline. The department is also developing an applied emphasis in environmental analysis, including courses in field methods, remote sensing, cartography, and geographic information systems. Students can thus select a broad academic program or emphasize acquisition of job-related skills.

Students must complete the School of Liberal Arts graduation requirements and a minimum of 30 credit hours in geography, as detailed below. The core courses are intended to provide a foundation for more specialized upper-division courses, and thus should be taken at the beginning of the major program. Geography G309 is normally offered every fall semester and G311 every spring.

Four core courses:

- G107 Physical Systems of the Environment (3 cr.)
- G110 Introduction to Human Geography (3 cr.)
- G309 Frontiers in Geographic Thought (3 cr.)
- G311 Introduction to Research Methods in Geography (3 cr.)

Two Geographic Techniques courses:

- G300 The World of Maps (3 cr.)
- G336 Introduction to Remote Sensing and Air Photo Interpretation (3 cr.)

- G337 Cartography and Graphics (3 cr.)
- G338 Introduction to Geographic Information Systems (3 cr.)
- G436 Advanced Remote Sensing (3 cr.)
- G438 Advanced Geographic Information Systems (3 cr.)
- G439 Seminar in Geographic Information Science (3 cr.)
- G465 Field Methods in Physical Geography (6 cr.)
- G488 Applied Spatial Statistics (3 cr.)

A total of three courses in environmental and human geography, to include at least one course from each area:

Environmental Geography:

- G303 Weather and Climate (3 cr.)
- G305 Environmental Change (3 cr.)
- G307 Biogeography (3 cr.)
- G310 Human Impact on Environment (3 cr.)
- G315 Environmental Conservation (3 cr.)
- G390 Topics: Environmental Focus (3 cr.)
- G404 Soils Geography (3 cr.)
- G446 Cultural Biogeography (3 cr.)
- G475 Climate Change (3 cr.)

Human Geography:

- G314 Urban Geography (3 cr.)
- G331 Economic Geography (3 cr.)
- G312 Gender and Geography (3 cr.)
- G355 Political Geography (3 cr.)
- G390 Topics: Human Geography Focus (3 cr.)
- G410 Medical Geography (3 cr.)

One of the following Regional Geography courses:

- G321 Geography of Europe (3 cr.)
- G322 Geography of Russia and Adjacent Lands (3 cr.)
- G323 Geography of Latin America (3 cr.)
- G326 Geography of North America (3 cr.)
- G327 Geography of Indiana (3 cr.)
- G328 Rural Landscapes of North America (3 cr.)
- G330 North American House Types (3 cr.)
- G390 Topics: Variable Regional Focus (3 cr.)
- G421 Environments of Tropical Lands (3 cr.)

Minor in Geography

The minor requires 15 credit hours in geography. All minors must take G107 and either G110 Introduction to Human Geography or G130 World Geography. The remaining 9 credit hours may be selected from any geography course at the 200 level or above.

Lower-Division Courses

G107 Physical Systems of the Environment

(3 cr.) Physical environment as the home of humans, emphasizing the distribution and interaction of environmental variables (landforms, vegetation, soils, weather, and climate).

G108 Physical Systems of the Environment:

Laboratory (2 cr.) Laboratory session to complement G107 Physical Systems of the Environment. Practical and applied aspects of meteorology, climatology, vegetation, soils, and landforms. This laboratory session is optional for students enrolling in G107. G107 must be taken prior to or concurrently with G108.

G110 Introduction to Human Geography (3 cr.)

An introduction to the principles, concepts, and methods of analysis used in the study of human geographic systems. Examines geographic

perspectives on contemporary world problems such as population growth, globalization of the economy, and human-environmental relations.

G111 Hurricanes (1 cr.) Introduction to processes involved in the initiation and development of hurricanes, forecasting and modeling tools used to predict their effects, and impacts on the natural environment and humans.

G112 Thunderstorms and Tornadoes (1 cr.)

Introduction to the processes involved in the initiation and development of thunderstorms and tornadoes, forecasting and modeling tools to predict their spatial pattern and effects, and impacts on the natural environment and humans.

G113 The Ozone "Hole" (1 cr.) Introduction to the role and significance of the stratospheric ozone layer and the nature and extent of its depletion. Attention will focus on the development of our understanding, human intervention, and major points of controversy.

G114 The Greenhouse Effect and Global Warming (1 cr.)

Introduction to the greenhouse effect and global carbon cycle. Attention will be directed to how, when, and where humans have altered this cycle and the implications for future climates. Methods for monitoring climate change will be studied and areas of greatest uncertainty identified. Particular attention will be directed to the spatial pattern of projected effects produced by global climate models.

G123 Soil Survey (1 cr.) An introduction to soil geography. Soil development processes, USDA soil survey map interpretation, physical and mechanical soil properties, and land use analysis.

G130 World Geography (3 cr.) An analysis of the existing and emerging geographic patterns in the world and of the processes and trends producing such patterns. An examination of the global scale of human activities and interaction with the environment and the linkages tying the various regions of the world into a single, global system.

G185 Global Environmental Change (3 cr.) The scientific basis behind natural and human-induced global environmental changes. Geological perspective of the formation of the earth. Human activities influencing the natural system, including population, deforestation, water usage, acid rain, ozone depletion, smog, and global warming. Subsequent human reactions. Co-taught in Departments of Geography and Geology.

Upper-Division Courses

Upper-division courses generally presuppose that students have at least introductory course preparation in human and environmental geography (G107 and G110).

G300 The World of Maps (3 cr.) Acquaints students with the practical use and evaluation of various types of maps and charts and introduces the basic analysis and interpretation of this medium of communication. Attention to the history of maps; types, compilation, and presentation of information on maps; mapping the earth; and cognitive and thematic mapping.

G303 Weather and Climate (3 cr.) Systematic study of atmospheric processes and interrelationships, with a focus on understanding the physical basis of weather and climate. Emphasis on components of radiation and energy balances, atmospheric circulation, global weather systems, human effects on climate, and climate change.

G305 Environmental Change: Nature and Impact (3 cr.) An integrated systems approach to examining the forcing, systems response, and impacts of environmental change. Key scientific areas: climate variability, sensitivity, and prediction; environmental chemistry; and ecosystem and anthropogenic response.

G307 Biogeography: The Distribution of Life (3 cr.) A survey of the present and past distributions of the world's plants and animals, emphasizing ecological explanation of species distributions. Topics include evolution and distribution of major plant and animal groups, world vegetation, plant and animal domestication, introduction of plant and animal pests, destruction of natural communities, and extinction.

G309 Frontiers in Geographic Thought (3 cr.) Provides a survey of the development of philosophical frameworks and theories used in physical and human geography.

G310 Human Impact on Environment (3 cr.) A systematic examination of how people have altered patterns of climate, hydrology, land forms, soils, and biota. Course emphasizes that understanding human impacts requires knowledge of both the sociocultural forces that drive human activity and the natural processes that determine environmental patterns.

G311 Introduction to Research Methods in Geography (3 cr.) Introduction to geographic research questions and methodologies. Focus on special characteristics of geographic problems in the realms of both physical and human geography. Study of scientific versus nonscientific methods, the nature of geographic data, methods of data analysis, interpretation, and presentation.

G312 Gender and Geography (3 cr.) Covers major themes of human geography with a focus on women and gender relations. The spatial variations in the economic and social situations of women both globally and within the North American context will be documented. A survey of gender differences in urban areas, in access to facilities, in political participation, and in environmental perception will be provided.

G314 Urban Geography (3 cr.) Study and interpretation of urban spatial structures, design, policies, and problems with an emphasis on the geographic perspective. Topics include urban housing markets, racial segregation, homelessness, and urban crime.

G315 Environmental Conservation (3 cr.) Conservation of natural resources including soil, water, wildlife, and forests as interrelated components of environmental quality.

G321 Geography of Europe (3 cr.) Geographical analysis of the physical features of the European environment and the spatial patterns and interrelationships of the cultural, economic, and

political landscapes. Emphasis placed on human impact on the environment through long-term occupation.

G322 Geography of Russia and Adjacent Lands (3 cr.) Spatial analysis of the economic, social, and political structure of Russia and the other new countries of the former Soviet Union. Examination of the physical environment and its potential for human utilization. Special emphasis on problems regarding the stability of these new states, current efforts at political and economic reform, and environmental pollution.

G323 Geography of Latin America (3 cr.) National and regional variations in terrain, climate, natural resources, and economic and social life in Mexico, Central America, the West Indies, and South America.

G326 Geography of North America (3 cr.) Continental and regional variations in terrain, climate, and economic and social life of the United States and Canada, with emphasis on geographical principles, sources of data, and techniques of investigation.

G327 Geography of Indiana (3 cr.) A geographical analysis of the state of Indiana. Emphasis placed on the interrelationship of the state's physical and human geography.

G328 Rural Landscapes of North America (3 cr.) Rural geography of the United States and Canada, focusing on rural settlements, culture, economic activities, and land subdivision. The spatial impacts of economic and technological changes on land use are considered through an examination of relict structures and urban expansion into rural areas.

G330: North American House Types (3 cr.) Houses are a visible semi-permanent record of human values, political ideas, historical settlement, and community development. This record is reflected in the types of houses built during a particular time period, by certain groups of people, or in a certain area of the country. This course examines house types for the purpose of identifying and analyzing geographic patterns that occur in North America.

G331 Economic Geography (3 cr.) An examination of the spatial dynamics and locational patterns of economic activities, behavior, and systems. The study of the spatial organization of resource utilization, agricultural production, manufacturing, business, transportation, and trade.

G336 Introduction to Remote Sensing and Air Photo Interpretation (3 cr.) Nature and interpretation of remotely sensed data collected from field, airborne, and space-borne sensors. Data from the visible, infrared, and microwave portions of the electromagnetic spectrum are discussed and analyzed from a geographic applications perspective. Visual, photogrammetric, digital image processing, and GIS interpretation approaches are presented. Lecture and laboratory.

G337 Computer Cartography and Graphics (3 cr.) Compilation, design, production, and evaluation of maps and related graphic materials. Includes cartometric procedures, symbolization, color use guidelines, map typography, photographic

manipulations, computer animation, and geographic visualization techniques. Hardcopy and internet-based outputs. Lecture and laboratory.

G338 Introduction to Geographic Information Systems (3 cr.) Overview of the principles and practices of Geographic Information Systems (GIS). The course will deal with issues of spatial data models, database design, introductory and intermediate GIS operations, and case studies of real-world GIS applications. Laboratory exercises will provide significant hands-on experience. Lecture and laboratory.

G345 Field Study in Geography (3 cr.) P: 12 credit hours in geography and consent of instructor. Faculty-supervised fieldwork in selected areas of geography. May be repeated up to a maximum of 6 credit hours.

G355 Political Geography (3 cr.) An examination of the spatial organization of political systems and the interaction of geographical area and political processes. Emphasis on the geographical characteristics of states and the geographical dimensions of international relations.

G390 Topics in Geography (1-3 cr.) An examination of selected problems and issues in geography or from a geographic perspective. Topics vary from semester to semester. Recent offerings include the Caribbean, Wine, and Italy.

G404 Soils Geography (3 cr.) Soil genesis, morphology, and classification; soil's physical, chemical, mechanical, and biological properties. Soil maps and related data in land use analysis and the planning process.

G410 Medical Geography (3 cr.) An examination of the spatial patterns of human disease and related social and environmental factors. An analysis of inequalities in the access to and use of health care.

G421 Environments of Tropical Lands (3 cr.) A geographical analysis concerned with developing countries and focusing on issues related to development and the environmental consequences. Concern for the natural environment is expressed with regard to how it is affected by population pressures, economic advancement, and urbanization. An understanding of Third World people and their cultures is presented.

G436 Advanced Remote Sensing: Digital Image Processing (3 cr.) P: G336 or consent of instructor. Advanced remote sensing theory and digital image processing techniques with an emphasis on environmental applications. Hands-on computer exercises provide significant experience in introductory digital image processing for extraction of qualitative and quantitative information about Earth's terrestrial environments. Lecture and laboratory.

G438 Advanced Geographic Information Systems (3 cr.) P: G338 or consent of instructor. Intermediate and advanced topics in geographic information science and spatial analysis techniques using GIS software. This advanced course is for upper-division undergraduates and graduates who seek a greater understanding of this rapidly developing field and to learn how to construct, manage, and analyze

their own GIS data and models. Lecture and laboratory.

G439 Seminar in Geographic Information Science (3 cr.) P: G336, G338, and G436 or G438. Applications of geographic information science principles in the collection and analysis of spatial data. Integration of GIS, remote sensing, and/or GPS technologies. Review of current literature on techniques, theory, technology, and applications with an emphasis on environmental issues. Discussions, laboratory, and research project.

G446 Cultural Biogeography (3 cr.) R: G307. Examines human alterations of natural plant and animal distributions. Topics include deforestation, extinction, plant and animal domestication, and introduction of alien organisms. Seminar format.

G450 Undergraduate Readings and Research in Geography (1-3 cr.) Research in selected problems: papers are ordinarily required.

G460 Geography Internship (1-6 cr.) P: 12 credit hours of geography and departmental approval. Supervised field experience in geography, normally in conjunction with approved work at a government agency or private firm. Requires 40 hours of work per 1 hour of credit.

G465 Field Methods in Physical Geography (6 cr.) P: G311 or consent of instructor. A survey of the methods and equipment basic to field research in physical geography, including climatology, hydrology, soil geography, and biogeography. Normally taught jointly by two instructors. May include a one-week field trip.

G475 Climate Change (3 cr.) R: G303. Advanced course on the evidence for and theories of climate change over a range of time scales, focusing on the period before the instrumental record.

G488 Applied Spatial Statistics (3 cr.) Extension of traditional statistical analysis to two-dimensional Earth space. Examination of centers, dispersion, nearest neighbor analysis, quadrat methods, and contiguity analysis. Problems of analyzing areally aggregated spatially distributed data.

G491 Capstone Experience in Geography (1 cr.) An independent project for senior-level students, applying geographic theory and techniques to a topic of geographic interest beyond the limits of the regular curriculum. Open to majors or nonmajors with appropriate preparation, including G309 and G311. May be taken alone or concurrently with another course.

Graduate Courses

G535 Introduction to Remote Sensing and Air Photo Interpretation (3 cr.) Nature and interpretation of remotely sensed data collected from field, airborne, and space-borne sensors. Data from the visible, infrared, and microwave portions of the electromagnetic spectrum are discussed and analyzed from a geographic applications perspective. Visual, photogrammetric, digital image processing, and GIS interpretation approaches are presented. Lecture and laboratory.

G536 Advanced Remote Sensing: Digital Image Processing (3 cr.) P: G535 or consent of instructor. Advanced remote sensing theory and digital image processing techniques with an emphasis on environmental applications. Hands-on computer exercises provide significant experience in introductory digital image processing for extraction of qualitative and quantitative information about the Earth's terrestrial environments. Lecture and laboratory.

G537 Computer Cartography and Graphics (3 cr.) Compilation, design, production, and evaluation of maps and related graphic materials. Includes cartometric procedures, symbolization, color use guidelines, map typography, photographic manipulations, computer animation, and geographic visualization techniques. Hardcopy and Internet-based outputs. Lecture and laboratory.

G538 Introduction to Geographic Information Systems (3 cr.) Overview of the principles and practices of Geographic Information Systems (GIS). The course will deal with issues of spatial data models, database design, introductory and intermediate GIS operations, and case studies of real-world GIS applications. Laboratory exercises will provide significant hands-on experience. Lecture and laboratory.

G539 Advanced Geographic Information Systems (3 cr.) P: G538 or consent of instructor. Intermediate and advanced topics in geographic information science and spatial analysis techniques using GIS software. This advanced course is for upper-division undergraduates and graduates who seek a greater understanding of this rapidly developing field and to learn how to construct, manage, and analyze their own GIS data and models. Lecture and laboratory.

G602 Graduate Seminar in Physical Geography (3 cr.) P: consent of instructor. Distribution, morphology, and human significance of selected phenomena of the physical environment.

G639 Seminar in Geographic Information Science (3 cr.) P: G535, G538, and G536 or G539. Applications of geographic information science principles in the collection and analysis of spatial data. Integration of GIS, remote sensing, and/or GPS technologies. Review of current literature on techniques, theory, technology, and applications with an emphasis on environmental issues. Discussions, laboratory, and research project.

G817 Seminar in Regional Geography (3 cr.) P: consent of instructor. Intensive study of an area well known to the staff member in charge.

G830 Readings in Geography (12 cr. max.) P: advanced course in geography or closely related fields. Supervised readings on selected topics.

German

See "Foreign Languages and Cultures."

History

Chair Associate Professor Philip V. Scarpino

Professors David J. Bodenhamer, Bernard Friedman (Emeritus), Ralph Gray (Emeritus), Miriam Z. Langsam, John R. McKivigan, William H. Schneider, Peter J. Sehlinger (Emeritus), Mary Seldon (Emerita), Scott J. Seregny, Jan Shipps (Emerita)

Associate Professors Robert G. Barrows, Kenneth E. Cutler, Wietse de Boer, Sabine Jessner (Emerita), Justin Libby, Monroe Little Jr., Elizabeth Brand Monroe, Berthold Riesterer (Emeritus), Kevin C. Robbins, Philip V. Scarpino, Marianne S. Wokeck, Xin Zhang

Assistant Professors Annie Gilbert Coleman, Sheila M. Cooper (Emerita), Kevin Cramer, Didier Gondola, Nancy Marie Robertson, Michael Snodgrass

Adjunct Professors Peter T. Harstad; Elizabeth Kryder-Reid, *Anthropology (Museum Studies)*; David Vanderstel, *POLIS Center and National Council on Public History*

Academic Advising Cavanaugh Hall 504M, (317) 274-3811

The Department of History offers students the opportunity to better understand the human social condition through the systematic study of the human past. A variety of courses is offered dealing with the history of the United States, Europe, Latin America, and some non-Western areas. The history major not only provides opportunities to serve the avocational interest of the liberal arts student but also provides a foundation for continued work at the graduate level. Courses in history serve the student admirably in fulfilling the tradition of a liberal education. They also provide a solid basis for professional training in such fields as law, business, environmental affairs, historic preservation, public administration, and government.

Undergraduate Major in History

Programs leading to the major in history should be carefully planned; department advisors are available, and each faculty member in the department can assist in answering student queries. Before submitting their requests for a senior audit (after 86 accumulated credit hours) to the recorder in the Office of the Dean of Student Affairs (CA 401), students must consult with one of the faculty advisors in the Department of History.

Requirements

Thirty-three credit hours of courses must be completed with a minimum grade of C in each course. Nine of the 33 credit hours of required courses must be taken in residence on the Indianapolis campus during two consecutive semesters (but not two consecutive summer sessions). Two semesters of History H108, H109, H113, H114, (but not H109-H114) must be completed to satisfy School of Liberal Arts distribution requirements, and are consequently omitted from the following department requirements: 6 credit hours: H105 and H106, United States History I and II

24 credit hours: Concentration and subconcentration courses (all courses here must be 200 level or higher). Select any one of the following:

1. United States History Concentration
12 credit hours U.S. History (A-prefix courses)

6 credit hours European History (B-C-D-prefix courses)

6 credit hours Non-U.S.—Non-European History (E-F-G-prefix courses) (Note: H-prefix courses are special topics, and their application to categories must be approved by advisors.)

2. European History Concentration
12 credit hours European History
6 credit hours U.S. History
6 credit hours Non-U.S.—Non-European History
3. Non-U.S.—Non-European History Concentration
12 credit hours Non-U.S.—Non-European History
6 credit hours U.S. History
6 credit hours European History
4. Thematic concentration
Thematic concentrations require 12 credit hours of courses in such fields as urban, family, science/technology/medical history, and two 6 credit hour support areas as specified in the theme description. Consult history advisors and the department office for lists of thematic concentrations currently available to majors.
- 3 credit hours: J495 Proseminar for History Majors
Seminar topics vary from semester to semester. Majors should plan to take the seminar during their senior year and sign up for a section that has the same focus as their concentration area.

Minor in History

Requirements

Fifteen credit hours of courses in history above the 200 level (6 credit hours completed at IUPUI), with a minimum grade of C in each course, is required. The course work must be distributed as follows:

- 9 credit hours in either U.S. History (A-prefix courses), European History (B-C-D-prefix courses), or Non-U.S.—Non-European History (E-F-G-prefix courses). H-prefix courses are special topics, and their application to the above categories must be determined individually.
- 3 credit hours in the second of the areas not selected above.
- 3 credit hours in the third of the areas not selected above.

Secondary History Teachers

The student who seeks to teach history at the secondary level may (1) major in history and obtain the necessary certification in addition, or (2) major in social studies education through the School of Education. In either instance, the student must arrange with the School of Education for a complete program; in the first instance, history majors consult history department counselors about the major and School of Education counselors concerning certification.

History H108 Perspectives on the World to 1800 and History H109 Perspectives on the World since 1800 are recommended for students seeking state certification in social studies.

Master of Arts Degree

Admission

To be admitted to the Master of Arts degree program, students must have (1) a bachelor's degree from an accredited college or university, with a minimum overall undergraduate grade point average of

3.0 (B) and a minimum grade point average of 3.0 (B) in the student's undergraduate major (an undergraduate major in history is not required, but applicants without such a background may be required to take additional course work in history at the undergraduate level as a condition for acceptance into the program); (2) an appropriate level of achievement on the Graduate Record Examination (GRE) General Test; (3) three letters of recommendation; and (4) two years of foreign language as an undergraduate with appropriate level of achievement.

Grades

No grade below B– (2.7) in history courses will be counted toward this degree.

Course Requirements

Students pursuing any one of the three concentration areas must take H500 or H501. Those electing United States history must take at least one graduate colloquium and one graduate seminar in United States history and at least one course in non-United States history. Students electing European history must take a graduate colloquium and seminar in that area and at least one course outside their concentration. With the consent of their faculty advisor, students may take as many as 6 credits outside the Department of History. Six credits will be granted upon successful completion of the required master's thesis. A total of 30 credit hours is required for students concentrating in United States and in European history.

Students choosing public history as their area of concentration must take H500 or H501, H542, a colloquium and seminar in United States history, and do an internship. Four credits will be granted upon satisfactory completion of the internship project. Public history students must also take at least one course outside United States history. With the consent of their faculty advisor, they may take as many as 6 credits outside the Department of History. A minimum of 36 credit hours is required for students concentrating in public history.

Foreign Language Requirement

There are no foreign language requirements for the degree. However, if a student has not met the foreign language admission requirement, that deficiency must be removed before the thesis defense. Students planning to go on for the Ph.D. are urged to validate their reading proficiency in a foreign language according to University Graduate School standards.

Combined Master of Library Science and Master of Arts in History

Study for these two degrees can be combined for a total of 50 credit hours rather than the 66 credit hours required for the two degrees taken separately. Students take 20 credit hours in history, which must include one graduate seminar and one graduate colloquium. No thesis is required for students earning an M.A. degree in history who are also earning a master's degree in library science under this dual degree program. However, they must satisfy the foreign language proficiency requirement as spelled out in the University Graduate School Bulletin. No area of concentration is required, but students wishing to focus on public history for the M.A. in history must also include History H542 among the required 20

credit hours of history course work. Such students may, if they wish, do a public history internship and count a maximum of 2 credit hours of History H543 toward the degree. (Students may enroll in H543 only after having taken or while taking H542).

The remaining 30 credit hours of library science include SLIS L501, L507, L520, L524, L528, L586 or HIST H547, L596, L625, plus 6 credit hours of electives in library science. Admission to each of the two master's programs is approved separately on the same basis as for other applicants not in the combined program.

Combined Master of Arts in History and Philanthropic Studies

The dual M.A. in history and philanthropic studies creates a unique opportunity to pursue critical inquiry into the historical, cultural, philosophical, and economic implications of voluntary action for the public good. Historians routinely study the role of nonprofit organizations, self-help groups, and philanthropic institutions. This dual-degree program offers an interdisciplinary focus on the past, present, and future. This degree will be attractive to students wishing to pursue: (1) careers that demand the skills and talents developed by cross-training in history and philanthropy; or (2) doctoral programs that encourage new and creative approaches to the historical study of philanthropy, broadly defined.

Admission requirements for the dual-degree program are identical to those for each program separately. A separate application must be made to each of the programs. Prospective students are expected to take responsibility for learning about and meeting the differing admission requirements and deadlines of each department. Students must make plans early with advisors in both programs to identify common courses and a thesis topic.

Study for these two degrees can be combined for a total of 51 credit hours (U.S. or European history concentrations) or 54 credit hours (public history) rather than the 66 or 72 credit hours that would be required if the two degrees were taken separately. For all concentrations, the required 700-level seminar for the M.A. in history may be selected as an elective to meet the philanthropic studies requirement for one of two theoretical electives. The required philanthropic studies course HIST H509 History of Philanthropy in the West may be taken to meet the history requirement for a history elective. Required course PHIL P542 Ethics and Values of Philanthropy, or PHST P512 Human and Financial Resources for Philanthropy, may be taken to meet 3 credits of the 6 credits of outside electives that may be taken in the history program. For public history students, HIST H543 Practicum meets the requirement for PHST P590 Internship for the philanthropic studies program. A common thesis meets the requirements of both departments.

Undergraduate Courses

History courses numbered 200 or above are usually taken by students with a background such as that provided in the 100 level courses; however, students who are mature and who have a good background in history may enroll in 200 to 400 level courses as their first courses in history. *Note:* There are several 300-level classes offered at Bloomington that have the

same content as 400-level classes offered at IUPUI. In such cases, both classes may not be taken for credit. See individual course descriptions for further information.

H105-H106 American History I-II (3-3 cr.)

I. Colonial period, Revolution, Confederation and Constitution, national period to 1865. II. 1865 to present. Political history forms framework, with economic, social, cultural, and intellectual history interwoven. Introduction to historical literature, source material, and criticism.

H108 Perspectives on the World to 1800 (3 cr.)

Emergence of civilizations in the Near East, Sub-Saharan Africa, pre-Columbian America. Role of revolutions, i.e., geographic, scientific, industrial, social, and political (American and French) in establishment of European hegemony in Asia and the Western Hemisphere.

H109 Perspectives on the World since 1800 (3 cr.)

Rise and fall of European imperial rule in Asia, the Middle East, and Africa. Special focus on impact of World War I, Chinese, Mexican, Russian revolutions. Independence movement in India, World War II, Cold War, new nations in Asia and Africa, struggle for solidarity in Latin America.

H113-H114 History of Western Civilization I-II (3-3 cr.)

I. Rise and fall of ancient civilizations; barbarian invasions; rise, flowering, and disruption of medieval church; feudalism, national monarchies. II. Rise of middle class; parliamentary institutions, liberalism, political democracy; industrial revolution, capitalism, and socialist movements; nationalism, imperialism, international rivalries, world wars.

H117 Introduction to Historical Studies (3 cr.)

An "assignment-intensive" course aimed at developing critical thinking skills by stimulating an awareness of history and its uses. How history is documented, evaluated, and written is considered. Students examine historical sources, study historical methods, analyze historical writings, and confront the question of objectivity through experimenting with history writing.

H217 The Nature of History (3 cr.)

An introductory examination of what history is, types of historical interpretation, common problems in history, and the uses of history.

H220 American Military History (3 cr.)

From settlement of colonies to present. European background, colonial militia. Principal foreign wars and their strategic objectives. Technological changes and effect of military on American society. Army is emphasized with some attention to other armed forces.

H221 Studies in African, Asian, or Latin

American History (3 cr.) Study and analysis of selected themes, topics, or problems in the history of Africa, Asia, or Latin America. The course will emphasize general and/or broad themes or topics; the themes or topics will vary from one semester to another. A student may register for only two courses with this number.

A301-A302 Colonial and Revolutionary America

I-II (3-3 cr.) European background of American history; discovery and exploration of New World by

Spain, France, and England. Colonization: motives, causes, types. Social and intellectual developments in English colonies in the seventeenth and eighteenth centuries. Birth of Republic, 1763-89.

A303-A304 United States, 1789-1865 I-II

(3-3 cr.) Political, economic, and social development of United States from Washington's presidency through Civil War. Growth of political, religious, educational, and other social institutions, and contributions of Hamilton, Jefferson, Jackson, Webster, Marshall, Lincoln. Agriculture, manufacturing, commerce, labor.

A313 Origins of Modern America, 1865-1917

(3 cr.) Social, economic, cultural, and political ways in which Americans accommodated and resisted changes introduced by large-scale industrialization. Populism and progressivism receive special attention.

A314 United States History, 1917-1945 (3 cr.)

Political, demographic, economic, and intellectual transformations of 1917-1945; World War I, the twenties, the Great Depression, New Deal, World War II.

A315 United States History since World War II

(3 cr.) Political, demographic, economic, and intellectual transformations of 1945-present: Cold War, problems of contemporary America.

A317 American Social History, 1865 to Present

(3 cr.) Development of modern American intellectual and social patterns since the Civil War. Social thought, literature, science, the arts, religion, morals, education.

A321-A322 History of American Thought I-II

(3-3 cr.) Ideas that have influenced American history. I. Image of New World to challenge of Jacksonian democracy. II. Transcendentalism to New Conservatism. Term papers and reports.

A325-A326 American Constitutional History I-II

(3-3 cr.) I: 1607-1865. II: 1865-present. Changing constitutional system from seventeenth-century colonies to contemporary nations. Structure of government: federalism, division of powers, political institutions. Relationship of government to society and economy. Civil liberties and democracy. Constitutional law and politics.

A337-A338 American Frontier I-II (3-3 cr.)

I. Spanish penetration into Greater Southwest; developments in Louisiana Territory and Oregon Country prior to 1850. II. Economic, political, and social developments in trans-Mississippi West, 1850 to present.

A345-A346 American Diplomatic History I-II

(3-3 cr.) I. American diplomacy from 1775 to 1823; diplomacy of American continental expansion to 1898. II. America as a world power. Involvement in Far Eastern affairs after 1898, diplomacy of World Wars I and II, developments to present.

A347 American Urban History (3 cr.)

Evolution of cities and urban life in the United States from colonial times to the present. Rise of cities (New York, Chicago, Indianapolis, Los Angeles, Miami, and others). Creation of modern urban districts (ghettos, suburbia), city planning, political and economic power structures, ethnic and race relations, law and order (crime, police, prisons).

A348 Civil War and Reconstruction (3 cr.) The era of the Civil War and its aftermath. Military, political, economic, and social aspects of the coming of the war, the war years, and the “reconstruction” era following the conflict.

A352 History of Latinos in the United States (3 cr.) Examines twentieth century history of immigration to the United States from Mexico, Puerto Rico, Cuba, and Central America. Compares causes of immigration and contrasts experiences of Latino immigrants in the United States.

A355-356 African-American History I-II (3-3 cr.) I. History of Africans in the United States from the colonial era to the Emancipation Proclamation. II. History of African Americans from the era of the Civil War to the present.

A363 Survey of Indiana History (3 cr.) Examination of Indiana history that focuses on significant persons, topics, and events from the earliest exploration and settlement of the state to the present day.

A364 History of Black Americans (3 cr.) A survey of black life in America: the Atlantic slave trade, slavery, Afro-American culture, racism, Civil War and Reconstruction, peonage, segregation, northern migration, urban ghettos, discrimination, Harlem Renaissance, black nationalism, civil rights, black revolt, contemporary setting.

A371-A372 History of Indiana I-II (3-3 cr.) I: The course deals with the development of a midwestern state, with emphasis on the French and British periods, the West in the American Revolution, the transition from territory to state, political, economic, and cultural patterns, and the sectional crisis. II: The period since 1865, tracing the development of a modern industrial commonwealth—agriculture, industry, politics, society, education, and the arts.

A390 Representative Americans (3 cr.) Explorations of the lives and works of selected American men and women for the purpose of better understanding the ideological and social forces at work in American history. The course will serve as both an introduction to the biographical literature of American history and as an exercise in the relevance of biography to history.

A402 Readings in American Environmental History (3 cr.) The roots of modern attitudes and actions toward the environment, focusing on major works in American environmental history and its European antecedents.

A410 American Environmental History (3 cr.) An examination of the environmental context for American history by analyzing the diverse and changing interaction between Americans and the environment in which they have lived.

A421 Topics in United States History (3 cr.) Intensive study and analysis of selected historical issues and/or problems in United States history. Topics will vary by semester.

B309-B310 Britain I-II (3-3 cr.) I: Britain before 1688. Development of Britain and its institution from Roman times to the Glorious Revolution, with special

emphasis on political and constitutional change. II: Britain since 1688. Examines important modern political, economic, social, and cultural developments including industrialization and imperialism and the emergence of ideologies like liberalism and socialism.

B341 History of Spain and Portugal (3 cr.) The Iberian, Roman, and Moorish backgrounds, with emphasis on the medieval Christian thought and institutions of the peninsula during the Reconquest; the political and cultural unity of Spain and of Portugal from the Renaissance through the Enlightenment; the nineteenth- and twentieth-century attempts to achieve political stability and economic progress.

B351 Barbarian Europe 200 1000 (3 cr.) The collapse of Roman authority in the West; the Germanic monarchies; the growth of the Western church and the development of German, Greek, and Moslem empires; the Viking invasions; feudalism and manorialism.

B352 The Age of Chivalry 1000-1500 (3 cr.) The revival of urban life in the West; the Crusading movement and the development of feudal states; the struggle between church and state and the decay of feudal institutions.

B353 The Renaissance (3 cr.) Italian Renaissance as a political and cultural phase in the history of Western civilization. Its roots in antiquity and the Middle Ages; its characteristic expression in literature, art, learning, social transformation, manners, and customs. Expansion of Renaissance into France, Germany, and England.

B354 The Reformation (3 cr.) Economic, political, social, and religious background of Protestant Reformation; Lutheran, Reformed, Anglican, and Anabaptist movements, with reference to their political and theological trends; Catholic Reformation.

B355 Europe: Louis XIV to French Revolution (3 cr.) Absolutism to enlightened despotism; the European state and its authority in fiscal, judicial, and military affairs; sources, content, diffusion of the Enlightenment; agriculture, commerce, and industry in preindustrial economies; Old Regime France.

B356 French Revolution and Napoleon (3 cr.) P: H114 or consent of instructor. Crisis of Old Regime; middle-class and popular revolt; from constitutional monarchy to Jacobin commonwealth; the terror and revolutionary government; expansion of revolution in Europe; rise and fall of Napoleonic Empire.

B357 Modern France (3 cr.) A social, political, and cultural survey of France in the nineteenth and twentieth centuries.

B359-B360 Europe—Napoleon to First World War I-II (3-3 cr.) I: Post-Napoleonic reaction; revitalized revolutionary forces, 1848; reform in England and Russia; bourgeois monarchy and Second Empire in France; unification movements in Italy and Germany; middle-class nationalism, romanticism, and realism. II: Bismarckian and Wilhelmian Germany; Gladstone, Disraeli, and modern Britain; the French Third Republic and the last days of Tsarist Russia; disintegration of Ottoman Empire; the Austro-Hungarian Empire in decline; European society and culture on the eve of World War I.

B361-B362 Europe in the Twentieth Century I-II (3-3 cr.) Diplomatic, economic, intellectual, military, political, and social developments within Europe from World War I to present; changing relationships between Europe and other parts of the world.

B383-B384 European Intellectual History I-II (3-3 cr.) Critical examination and analysis of the historical, psychological, social, and scientific roots of the thought of leading European thinkers from the sixteenth to the twentieth centuries. Thematic developments, as well as individual thinkers and particular problems, are emphasized. I. Sixteenth through eighteenth centuries. II. Nineteenth through twentieth centuries.

B385 European Thinkers and the “Meaning of Life”: A Historical Inquiry (3 cr.) Exploration of the European response to the breakdown of traditional notions of meaning since the sixteenth century. Particular attention is paid to the specific historical contexts within which the issue of meaning emerged and to the solutions proffered.

B393 German History: From Bismarck to Hitler (3 cr.) This course seeks to acquaint the student with the social, political, and cultural developments in Germany from the middle nineteenth through the middle twentieth century. Its basic theme is the tragic efforts made by liberalism and democracy to assert themselves against the opposing forces of militarism and nationalism. Not open to students who have had B377-B378.

B421 Topics in European History (3 cr.) Intensive study and analysis of selected historical themes and/or problems in European history. Topics will vary from semester to semester.

C386 Greek History (3 cr.) Political, social, and economic developments in the Greek world from the age of Mycenae and Troy until the Roman conquest (167 B.C.). Greek colonial world, Athens and Sparta, career and legend of Alexander the Great, the Hellenistic age. Archaeology as a source of political and social history.

C388 Roman History (3 cr.) The creation, organization, and government of the Roman Republic and Empire; literature and manners; the careers of Hannibal, Cato the Censor, Augustus, Seneca, Nero, and others; the growth of Christianity to the reign of Constantine.

D313 Russian Social and Cultural History, 1801-1917 (3 cr.) A topical examination of different social groups within Russia and their alteration over time as a result of industrialization, emancipation, and the urbanization of Russia. Among the groups covered will be the peasantry, the bureaucracy, the intelligentsia, the nobility, and the military. Changes in culture will also be reviewed.

D314 Soviet Social and Cultural History (3 cr.) Study of the history and dynamics of Soviet society and culture, their interaction, and their influence on Soviet politics. Among the specific topics covered will be the Party, women, dissidents, the Jews and other minorities, literature, and art.

D428 Eastern Europe: 1914 to Present (3 cr.) World War I; the peace settlements in Poland,

Czechoslovakia, Austria, Hungary, Yugoslavia, Bulgaria, Albania, Greece, Romania, and Turkey. Parliamentary democracy vs. military dictatorship; irredentism; economic transformation; Nazi domination; Munich; Soviet seizure of power. National communism of Tito, Gromulka, Kadar, Ceausescu, Dubcek, and Hoxha. Soviet and Western rivalry in Eastern Europe.

E432 History of Africa II (3 cr.) 1750 to present. Slave trade, European imperialism, impact of Islam and Christianity, new state formation, reassertion of African culture and identity. Credit awarded for only one of E432 and E332.

F341 Latin America: Conquest and Empire (3 cr.) The colonial period: Spanish, Portuguese, Indian, and African backgrounds; the discovery, conquest, and settlement; the economic, social, political, religious, and cultural life; the movement toward independence.

F342 Latin America: Evolution and Revolution since Independence (3 cr.) National period: the struggle for independence; the nineteenth-century attempts to achieve political stability and economic progress; the efforts to attain social justice in the twentieth century, with emphasis on common problems.

F346 Modern Mexico (3 cr.) Survey of Mexican history from the late 1800s to the present. Focuses on causes for and long-term consequences of Mexico's 1910 revolution.

F431 Nineteenth-Century Latin American Intellectual History (3 cr.) The intellectual and political foundations for independence; the creation of the nation-state; the continuing political and intellectual attempts to establish and safeguard liberty and order.

F432 Twentieth-Century Latin American Revolutions (3 cr.) Revolutionary desires and the forces for change; the Mexican, Bolivian, and Cuban revolutions; nonviolent attempts to restructure society in other Latin American states.

F444 History of Mexico (3 cr.) Brief survey of the colonial period, independence movement, and nineteenth century. Emphasis on the intellectual, political, and cultural history of the Mexican Revolution.

G451 Traditional Asia (3 cr.) This course offers a brief survey of the early civilization of Asia, which includes China, Japan, Vietnam, Korea, and India, in the traditional period.

G452 Modern Asia (3 cr.) This course offers a brief survey of the civilization of Asia that includes selected topics related to China, Japan, Vietnam, Korea, and/or India in modern times.

G467-G468 History of Japan I-II (3-3 cr.) From prehistoric times to present. Land and people, principal classes; Shintoism and divine emperor; feudalism; Tokugawa Shogunate; modern state and military expansion; population, agrarian, and industrialization problems; occupation and treaty. Students may not receive credit for G467 and G357 or for G468 and G358.

G485 Modern China (3 cr.) China from the Ch'ing period to the present. Social, political, and economic change in a largely agrarian society. International and intercultural relations as well as rebellion, war, and revolution during the unstable nineteenth and twentieth centuries. Students may receive credit for only one of G485 and G385.

H227 African Civilization (3 cr.) Survey of African history from the beginning of civilization in Egypt to the emergence of modern Africa. Using both broad themes (e.g., Islam, colonial changes) and specific cases studies (e.g., Empire of Mali), the course focuses on the continuities and changes that shaped African society.

H306 Sex Roles and Society in American History (3 cr.) What has it meant to be female or male in America? Examination of sex/gender roles, stereotypes, housewifery, family life, sexual mores, work patterns, popular culture, demographic change, politics, and violence. Special emphasis on utopias, frontiers, and wars. Readings in original sources and scholarly interpretations.

H364 History of Medicine and Public Health (3 cr.) History of medicine and public health in Europe and America, including ancient and medieval background, with focus on the development of modern health sciences since 1800.

H373-H374 History of Science and Technology I-II (3-3 cr.) I. Study of the development of pure and applied science from prehistoric times to the Scientific Revolution, with emphasis on principles, technical aspects, relationships between the sciences; the evolution of major scientific disciplines and the effects on other institutions and world views. II. An in-depth study of scientific and technological developments from the Scientific Revolution to the present. Special emphasis on transportation, communication, military and medical technology, physics, biology, and astronomy and on the figures involved in key breakthroughs. Consideration of governmental involvement in science.

H375 Machines and the Age of Invention (3 cr.) The history of invention and the industrialization of Britain during the eighteenth and nineteenth centuries, with the economic, social, demographic, and intellectual changes that resulted.

H409 Women in History (3 cr.) P: junior or senior standing. Women in their historical and contemporary situation in Western culture; survey of prehistoric and historic myths about women; status of women during the major eras of Western civilization; exceptional women and their influence; demands for the achievement of women's rights in modern times.

H410 Introduction to Archival Practice (3 cr.) Introduction to the history, theory, and practice of archival work, with intensive study and analysis of the principal issues in the preservation and use of historical records. Particular focus is on the issues relating to the historical records of organizations and individuals engaged in philanthropic work.

H411 Historical Editing (3 cr.) Introduction to the history, theory, and practice of historical editing, with emphasis on the processes of editing historical documents and the publications of history-related

organizations. Attention given to technical skills (copyediting, proofreading) as well as broader professional issues (ethics, the editor-author relationship, evolution of editorial standards).

H412 Historic Preservation (3 cr.) Introduction to the history, theory, and legal and ethical bases for preservation of the built environment. Attention will be given to architectural history, methodology (site-specific research, contextual research) as well as professional issues such as who preserves, what should be preserved, and the role of the historian in making choices.

H415 Philanthropy in the West (3 cr.) The history of the social act of philanthropy from the beginnings of the Christian era to modern times. "Philanthropy" is construed broadly to include ethical injunctions to benevolence, charitable acts of individuals and corporate bodies, high art patronage, urban planning, and state action to improve living conditions through schooling, health care, prisons, and police.

H421 Topics in African, Asian, or Latin American History (3 cr.) Intensive study and analysis of selected historical issues and/or problems in African, Asian, or Latin American history. Topics will vary from semester to semester.

H425 Topics in History (3 cr.) Intensive study and analysis of selected historical issues and problems of limited scope. Topics will vary but will ordinarily cut across fields, regions, and periods. May be repeated once for credit.

H432 Popular Cultures and African Cities (3 cr.) Focuses on the interdependence between the development of the colonial and postcolonial city and the emergence of popular cultures in Africa. Cultures such as music, fashion, and sports will be studied in their recreational aspects as well as for their social and political implications.

Special Purpose Courses

The following courses serve special purposes. Enrollments in them are not limited to history majors or minors, but others should check with the departmental chairperson or the instructor prior to registration.

J495 Proseminar for History Majors (3 cr.) Selected topics in history. Closed to freshmen and sophomores.

K493 Reading for Honors (1-3 cr.) P: approval of departmental honors committee prior to registration. Individual readings on selected topics.

K495 Readings in History (1-3 cr.) By arrangement with instructor. Permission of departmental chairperson required.

Graduate Courses

General and Professional Skills

G585 Modern China (3 cr.) China from the Ch'ing period to the present. Social, political, and economic change in a largely agrarian society. International and intercultural relations as well as rebellion, war, and revolution during the unstable nineteenth and twentieth centuries.

H500 History of Historical Thought (4 cr.)

Approaches to the historian's craft and reflections on history as a type of scholarly thinking.

H501 Historical Methodology (4 cr.) Discussion and application of the various methods and strategies used in historical research.

H509 Special Topics in European History (3 cr.) Study of topics in European history. May be repeated once for credit.

H511 Special Topics in American History (3 cr.) Study of topics in American history. May be repeated once for credit.

H521 Special Topics in African, Asian, or Latin American History (3 cr.) Intensive study and analysis of selected topics in African, Asian, or Latin American history. Topics will vary from semester to semester, e.g., Traditional Asia, Modern Asia.

H542 Public History (4 cr.) The application of history to public needs and public programs. Historic preservation, archival management, oral history, editing, public humanities programming, historical societies, etc.

H543 Practicum in Public History (1-4 cr.) Internships in public history programs, fieldwork, or research in the historical antecedents of contemporary problems.

H546 Special Topics in History of Science, Medicine, and Technology (3 cr.) Study of topics in the history of science, medicine, and technology. May be repeated once for credit.

H547 Special Topics in Public History (3 cr.) Intensive study and analysis of selected topics in public history. Topics will vary from semester to semester, e.g., historic preservation, archival practice, and historical editing. May be repeated once for credit.

H575 Graduate Readings in History (cr. arr.)**Colloquia**

These colloquia are of seminar size and involve oral and written study of the problems, bibliographies, interpretations, and research trends in the fields with which they respectively deal. They are the chief means by which a student becomes knowledgeable in history at a professional level. Any of them may be taken more than once, upon approval of the student's faculty advisor.

H615 Colloquium: Early Modern Western European History (4 cr.)

H620 Colloquium: Modern Western European History (4 cr.)

H630 Colloquium: British and British Imperial History (4 cr.)

H640 Colloquium: Russian History (4 cr.)

H650 Colloquium: United States History (4 cr.)

H665 Colloquium: Latin American History (4 cr.)

H699 Colloquium: Comparative History (4 cr.)

Seminars

These courses involve research at a mature level with primary sources in specialized topics and problems in the field with which they respectively deal. They train the student in historical scholarship. Any of them may be taken more than once upon the approval of the student's faculty advisor.

H715 Seminar: Early Modern European History (4 cr.)

H720 Seminar: Modern Western European History (4 cr.)

H730 Seminar in British and British Imperial History (4 cr.)

H750 Seminar in United States History (4 cr.)

Thesis

H898 M.A. Thesis (1-6 cr.)

Individualized Major Program

Director Associate Professor Robert F. Sutton, *Foreign Languages and Cultures, Classical Studies*

IMP Committee

Professors Miriam Langsam *History/Associate Dean, ex officio*; James Brown, *Journalism*; Barbara Jackson, *Anthropology*; N. Douglas Lees, *School of Science, Biology*; Monroe Little, *History/Afro-American Studies*; William Schneider, *History/Medical Humanities*; Rowland Sherrill, *Religious Studies/American Studies*; James Wallihan, *Political Science/Labor Studies*

Associate Professors Dennis Bingham, *English/Film Studies*; Stephanie Dickey, *Herron, Art History*; Greg Lindsey, *School of Public and Environmental Affairs*; Obioma Nnaemeka, *Foreign Languages and Cultures, French/Women's Studies*; Susan Shepherd, *English/Linguistics*

Assistant Professor Elizabeth Kryder-Reid, *Anthropology/Museum Studies*

Faculty All members of the IUPUI faculty are eligible to teach courses included in an Individualized Major.

Academic Advising Cavanaugh Hall 401, (317) 274-1460

Individualized Major Program

While the needs of most students are well served by existing majors offered on campus, some students have academic interests that do not fit well into existing programs or traditional disciplinary boundaries. The Individualized Major Program (IMP) in the School of Liberal Arts meets the needs of such students. It serves disciplined and self-motivated students who may wish to major in traditional disciplines or interdisciplinary areas for which majors are not available at IUPUI, as well as those who wish to fashion unique and original interdisciplinary majors that reflect their individual experience, interests, and needs. These include students whose work and life experience suggest the need for fresh ways of organizing existing courses into meaningful new majors, as well as innovative students who wish to bring together course work in several disciplines to focus on a thematic area or make unusual, yet valid connections between areas that are rarely studied together. The IMP can also serve transfer students who wish to continue work started elsewhere in areas in which IUPUI has faculty expertise but no organized majors.

Unlike other majors, which prescribe a fixed area of study, the Individualized Major provides a structure that allows such students, in consultation with faculty members, to design their own majors on various topics and fields of study. Each major course of study varies in accordance with the needs and interests of individual students. Students work closely with faculty advisors, and all individualized majors are overseen and approved by a faculty committee that ensures each student-designed major has intellectual integrity and rigor.

Admission and Academic Progress

The Individualized Major Program is administered through the School of Liberal Arts Office of Student Affairs, which supplies information and initial counseling to students who wish to consider designing an individualized major. All students seeking admission to the IMP must be admitted to the School of Liberal Arts and have a minimum cumulative GPA of 2.0. All liberal arts students, except those on academic probation, are eligible to apply for an Individualized Major Program. Before making formal application for admission to the Individualized Major Program, students must have completed at least 30 hours of general education requirements including English W132, Communication R110, and Mathematics M118 (or its equivalent).

Students desiring to pursue an individualized major should confer with the director of the IMP who will provide assistance in identifying and securing the agreement of a faculty member to serve as advisor. Under the supervision of this advisor the student will take I360, a 1-credit hour tutorial course in which he or she prepares a proposal for an individualized major. The student is accepted for admission to the major when this proposal is approved by the advisor and the faculty Individualized Major Program Committee. This committee may invite the participation of additional faculty with specific expertise to join in evaluating the plan. The major plan may subsequently be amended only in consultation with the advisor and with approval of the Individualized Major Program Committee.

After gaining admission to the IMP program, students must meet each semester with their advisors to register for courses and consider academic progress. A key component of the senior year is the variable credit capstone course I460, an independent study project in which students synthesize their work in the major. The project is approved and graded by the IMP Committee or a panel of experts appointed by the committee. The advisor and the IMP Committee certify students for graduation with the individualized major.

Requirements

The Individualized Major requires a minimum of 34 credit hours:

- 1) Two courses are required of all students (4-7 cr.):
 - I360 Individualized Major Plan (1 credit hour), a tutorial in which a student develops his or her plan for a major, including a list of courses, schedule, and rationale. This proposal must be more than a simple list of courses. Students proposing majors in traditional fields should discuss the history and nature of the discipline, describe its subfields and the methodologies it employs, and show how the proposed major fits within this framework. Those designing unique majors need to establish the intellectual unity of the proposed major and show appreciation of the different disciplinary traditions and methodologies on which it will draw. Upon approval of this plan by an advisor and the faculty Individualized Major Program Committee, the student is accepted into the Individualized Major Program.

- I460 Individualized Major Senior Project, a variable credit tutorial (3-6 cr.) normally taken over two semesters as a 6-credit hour course devoted to a capstone project that culminates and integrates the individualized major. Normally this is a major research paper with an oral presentation. Other options, such as a performance, multi-media product, work of literature, film, or work of art, may be approved if appropriate for a particular plan of study. Normally the project is presented to the Individualized Major Program Committee and defended through a seminar or colloquium. The grade for this course is recommended by the advisor and approved by the Individualized Major Program Committee; in some cases the Individualized Major Program Committee may instead appoint a committee of experts to assist the advisor in assigning the grade.
- 2) The remaining courses are selected from existing courses.
 - No lower- or upper-division courses applied to general education requirements may be included in the individualized major.
 - At least 15 credit hours in the major must be at the 300 or 400 level (in addition to I360 and I460).
 - No more than 6 credit hours of independent study may be counted in the major.
 - All courses counted in the major must be taken for letter grade; no course receiving a grade below C may be counted toward the major.

Undergraduate Courses (Required for all individualized majors)

SLA I360 Individualized Major Plan (1 cr.). P: Approval by advisor. A tutorial in which a student develops a plan for an individualized major. Upon approval of this plan, the student is admitted to the Individualized Major Program.

SLA I460 Individualized Major Senior Project (3-6 cr.). P: I360 (or admission to the Individualized Major Program) and approval by advisor. A variable credit tutorial devoted to a capstone project that culminates and integrates the individualized major. Normally taken in the senior year as a two semester 6-credit course.

International Studies

Director Associate Professor John McCormick, *Political Science*

Professors Kenneth Barger, *Anthropology*; Frederick Bein, *Geography*; Gabrielle Bersier, *German*; Ulla Connor, *English*; Sheila Cooper, *History*; Linda Haas, *Sociology*; Giles Hoyt, *German and International Programs*; William Schneider, *History*; Scott Seregny, *History*; Martin Spechler, *Economics*; Susan Sutton, *Anthropology*; Brian S. Vargus, *Political Science*; Rosalie Vermette, *Foreign Languages and Cultures*; James Wallihan, *Political Science*; Robert White, *Sociology*

Associate Professors Enrica Ardemagni, *Foreign Languages and Cultures*; Didier Bertrand, *Foreign Languages and Cultures*; Herbert Brant, *Foreign Languages and Cultures*; Wietse de Boer, *History*; Jeanette Dickerson-Putman, *Anthropology*; Thomas Fedor, *Geography*; Elizabeth Goering, *Communication Studies*; Claudia Grossman, *International Studies*; Ain Haas, *Sociology*; David Hoegberg, *English*; Barbara Jackson, *Anthropology*; William Jackson, *Religious Studies*; Justin Libby, *History*; John McCormick, *Political Science*; Lucila Mena, *Foreign Languages and Cultures*; Nancy Newton, *Foreign Languages and Cultures*; Obioma Nnaemeka, *Foreign Languages and Cultures*; Larbi Oukada, *Foreign Languages and Cultures*; Kevin Robbins, *History*; Robert Sutton, *Classical Studies*; Gail Whitchurch, *Communication Studies*; Marianne Wokeck, *History*; Reiko Yonogi, *Foreign Languages and Cultures*; Xin Zhang, *History*

Assistant Professors Peter Bloom, *English*; Didier Gondola, *History*; Jeffrey Kenney, *Religious Studies*; Scott Pegg, *Political Science*

The interdependence of our world is ever more vividly illustrated in our political, economic, and civic lives. To prepare students to function effectively in that world, particularly in a profession that may not be related to international concerns, the School of Liberal Arts offers two programs: a certificate and a minor.

Certificate in International Studies

A total of 27 credit hours is required for the Certificate in International Studies; of those 27 credits, 12 must be in core requirements and 15 in elective courses. Transfer courses will be accepted on the same basis as in other liberal arts programs, but at least half of the credit must be earned on this campus. Prerequisite courses add additional credit hours not counted in the 27.

Prerequisites

Foreign Language Students must complete at least the equivalent of two years of modern language study (16 credit hours minimum) or demonstrate competence at that level to the appropriate language department. Written notification must be provided to the director. The goal of this requirement will be for students to attain a working knowledge of a language that complements their focus of study.

Geographic Competence Not later than the first semester of enrollment in the certificate program, the student will be required to demonstrate geographic competence by one of two methods:

1. Completion of G355 Political geography or G331 Economic Geography with a grade of B or better.
2. Proof to the geography department by presentation of a paper, or another method to be prescribed by that department, that the student is geographically literate.

Writing Proficiency Students will be expected to have completed composition instruction or demonstrated their proficiency equivalent to English W132 prior to admission.

Requirements

Core Curriculum (12 cr.)

1. International economics: Economics E303 (3 cr.)
2. History (two semesters, 6 cr.) according to one of the following patterns:
 - a. Area courses consistent with an area emphasis, e.g., Western Europe, East Asia
 - b. U.S. diplomatic history.
3. Political Science Y219 Introduction to International Relations (3 cr.)

Elective Courses (15 cr.)

Elective courses are to be selected from an approved list, which follows this section. The remaining 15 credits should conform to the following specifications:

1. 12 credits with demonstrated focus, e.g., geographic area, comparative approach, etc.
2. At least one advanced course in each of anthropology, history, economics, and political science.

Overall Program

Half of all credit hours must be at the 300 level or above. This may include courses taken to satisfy foreign language or writing proficiency requirements.

Writing Requirement

A substantial paper, which may be in a research, analysis, report, or other format appropriate to the subject under study, is expected. This may be presented in conjunction with a course, as a part of the integrating seminar, or arise from another stimulus. Its style, focus, and extent must be approved in writing by the program director in advance.

Examples of papers that would be appropriate to present in satisfaction of this requirement might include

- an independent study that integrates perspectives from more than one discipline on a given topic
- a research paper prepared in conjunction with a standard course that offers a particularly broad focus
- a report produced as a consequence of study abroad that related to some previous academic study
- completion of a major paper—either in the context of a course or as an independent project, or in conjunction with an acceptable overseas study program

Minor in International Studies

A total of 15 credit hours is required for the minor in international studies. In addition, a student must have completed the second year of a foreign language.

Requirements

Political Science Y219 Introduction to International Relations.

12 credit hours from at least three departments focusing either on a single topic (e.g., comparative systems) or a single geographic area (e.g., Latin America).

Note: Other relevant courses may be accepted from other schools as well.

Topics

International Relations

COMM C482 Cross-Cultural Communication (3 cr.)
 ECON E303 Survey of International Economics (3 cr.)
 GE 109 Cultural Geography¹ (3 cr.)
 GEOG G130 World Geography (3 cr.)
 GEOG G331 Economic Geography (3 cr.)
 GEOG G355 Political Geography (3 cr.)
 HIST A345-A346 American Diplomatic History I-II (3-3 cr.)
 HIST H421 Topics in Asian, African, Latin American History (3 cr.)
 PHIL P323 Society and the State in the Modern World (3 cr.)
 POLS Y374 International Organization (3 cr.)
 POLS Y388 Marxist Theory (3 cr.)

Comparative Systems

ANTH E300 Culture Areas and Ethnic Groups (3 cr.)
 ANTH E455 Anthropology of Religion (3 cr.)
 ANTH E457 Ethnic Identity (3 cr.)
 ANTH E470 Psychological Anthropology (3 cr.)
 ECON E325 Comparative Economic Systems (3 cr.)
 ECON E337 Economic Development (3 cr.)
 GEOG G421 Environments in the Third World (3 cr.)
 HIST H373-H374 History of Science and Technology (3-3 cr.)
 POLS Y217 Introduction to Comparative Politics (3 cr.)
 POLS Y314 Global Environmental Policy (3 cr.)
 POLS Y341 Authoritarian Regimes (3 cr.)
 POLS Y343 Development Problems in the Third World (3 cr.)
 POLS Y345 Contemporary Revolutions (3 cr.)
 RELS R360 Comparative Study of Religious Phenomena (3 cr.)
 RELS R393 Comparative Religious Ethics (3 cr.)
 SOC R338 Comparative Social Systems (3 cr.)

Area Studies: Asia, Middle East, and Africa

ANTH E310 Cultures of Africa (3 cr.)
 EALC E231 Japan: The Living Tradition (3 cr.)
 EALC E351 Studies in Eastern Asian Culture (3 cr.)
 HS 320 History of Africa I¹ (3 cr.)
 HIST E432 History of Africa II (3 cr.)
 HIST G467-G468 History of Japan I-II (3-3 cr.)
 POLS Y336 Southeast Asian Political Systems (3 cr.)
 POLS Y338 African Politics (3 cr.)
 POLS Y339 Middle East Political Systems (3 cr.)
 RELS R361 Hinduism and Buddhism (3 cr.)

Area Studies: Latin America

GEOG G323 Geography of Latin America (3 cr.)
 HIST F341 Latin America: Discovery, Conquest, Empire (3 cr.)
 HIST F342 Latin America: Evolution and Revolution Since Independence (3 cr.)

HIST F431 Nineteenth-Century Latin American Intellectual History (3 cr.)
 HIST F432 Twentieth-Century Revolutions in Latin America (3 cr.)
 HIST F444 History of Mexico (3 cr.)
 PO 364 U.S.-Latin American Relations¹ (3 cr.)
 POLS Y337 Latin American Political Systems (3 cr.)
 SO 390 Societies and Cultures of Latin America¹ (3 cr.)

Area Studies: Europe and Canada

AR 301 Study Tour of Greece¹ (3 cr.)
 CAN 130 Introduction to Canada² (3 cr.)
 CAN 240 Introduction to Canadian Literature² (3 cr.)
 CAN 250 Canadian American Relations² (3 cr.)
 ENG L387 Russian Literature in Translation (3 cr.)
 FREN F326 French in the Business World (3 cr.)
 FREN F360 Introduction socio-culturelle à la France (3 cr.)
 FREN F451 Le français des affaires (3 cr.)
 FREN F452 La Civilisation et littérature québécoises (3 cr.)
 GEOG G321 Geography of Europe (3 cr.)
 GEOG G322 Geography of Russia and Adjacent Lands (3 cr.)
 GER G265 German Culture in English Translation (3 cr.)
 GER G291 German Literature Colloquium in Translation (3 cr.)
 GER G370 German Cinema (3 cr.)
 GER G384 Twentieth-Century German Literature in Translation (3 cr.)
 GER G391 German Literature Colloquium in Translation (3 cr.)
 HER H497 Summer School in Europe (3 cr.)
 HIST B309-B310 English History (3 cr.)
 HIST B341 History of Spain and Portugal (3 cr.)
 HIST B357 Modern France (3 cr.)
 HIST B359-B360 Europe: Napoleon to First World War I-II (3-3 cr.)
 HIST B361-B362 Europe in the Twentieth Century I-II (3-3 cr.)
 HIST B393 German History: From Bismarck to Hitler (3 cr.)
 HIST B421 Topics in European History (3 cr.)
 HIST D313 Russian Social and Cultural History, 1801-1917 (3 cr.)
 HIST D314 Soviet Social and Cultural History (3 cr.)
 HIST D428 Eastern Europe: 1914 to Present (3 cr.)
 HIST H230 History of Canada (3 cr.)
 PO 391 Post-Soviet Politics¹ (3 cr.)
 PO 392 East European Politics¹ (3 cr.)
 POLS Y322 Russian Politics (3 cr.)
 POLS Y335 Western European Politics (3 cr.)
 POLS Y350 European Integration (3 cr.)
 SPAN S461 Contemporary Spanish Literature (3 cr.)

Other Courses

BUS D301 International Business Environments (3 cr.)
 BUS D302 International Business Operations (3 cr.)
 BUS D496 Foreign Study in Business (3 cr.)

¹These courses are available at Butler University.

²These courses are available at Franklin College.

Japanese Studies

See "Foreign Languages and Cultures."

Legal Studies Minor

Law and the institutions associated with it are of great and growing importance in modern society. Law and legal institutions define relationships among individuals, shape and are shaped by public policies, and express cultural values and traditions as well as conflicts over those values and traditions.

The Minor in Legal Studies provides students with an opportunity to study law and its relationship to society from a variety of perspectives. Whether students are interested in law as a potential career or are interested in law only as an important aspect of modern society, the courses they take to satisfy the minor may help them satisfy that interest. The minor also provides official recognition of students' pursuit of this multidisciplinary field of study.

The minor consists of 15 credit hours and has to be satisfied by taking courses from more than one department or program. Students must complete 12 credit hours of upper-level course work chosen from the list of approved courses below, and 3 credit hours in a required introductory-level course. Each course must be completed with a semester grade of C or better in order to apply toward the minor.

Required Course

POLS Y211 Introduction to Law (3 cr.)

Additional Courses (12 credit hours from the following)

AMST A303 Topic: Law and American Culture (3 cr.)

HIST A325 American Constitutional History I (3 cr.)

HIST A326 American Constitutional History II (3 cr.)

HIST A421 Topic: American Legal History (3 cr.)

POLS Y304 Judicial Process and American Constitutional Law I (3 cr.)

POLS Y305 Judicial Process and American Constitutional Law II (3 cr.)

POLS Y320 Judicial Politics (3 cr.)

SPEA V376 Law and Public Policy (3 cr.)

WOST W300 Topic: Women and the Law (3 cr.)

Students who have questions about the legal studies minor, or who wish to declare and pursue the minor, should contact the advisor for legal studies, Professor William Blomquist, Cavanaugh Hall 503L, (317) 274-7547.

Medical Humanities and Health Studies

Director Associate Professor David Moller, *Sociology and Medicine*

Professors Carol Gardner, *Sociology*; Eleanor Kinney, *Law*; Eric Meslin, *Philosophy and Medicine*; Gary Mitchell, *Medicine*; David Orentlicher, *Law and Medicine*; Herman Saatkamp Jr., *Philosophy and Medical Genetics*; William Schneider, *History and Medical Genetics*; Richard Ward, *Anthropology and Dentistry*

Associate Professors Jeanette Dickerson-Putman, *Anthropology*; Margaret Gaffney, *Medicine*; Gregory Gramelspacher, *Medicine*; William Gronfein, *Sociology*; Jan Keffer, *Nursing*; Kimberly Quaid, *Medicine*; Eric Wright, *Sociology and Nursing*

Assistant Professors Richard Gunderman, *Philosophy and Radiology*; Stuart Schrader, *Communications*; Rebecca Sloan, *Nursing*; Kathleen Zoppi, *Family Medicine*

The Medical Humanities and Health Studies Program provides a unique opportunity for students in liberal arts, premedicine, allied health sciences, predentistry, and nursing, and for all those interested in the state of health care in America, to explore the concepts of health and illness from an interdisciplinary and multidisciplinary perspective.

Minor in Medical Humanities and Health Studies

The interdisciplinary minor in medical humanities and health studies seeks to promote an increased awareness of the humanistic, social, and cultural dimensions of health care and health care systems. It provides an exciting opportunity for students to work in close conjunction with faculty who have strong teaching and research interests in the area of health care. A survey of the relevant issues to be addressed during the course of study in the minor includes human values and ethics in decision making; the idea of preventive and holistic health and health care; patient care as an art form and scientific endeavor; the relation among ecology, economy, and health care; the relation between cultural and social systems and health and health care; the connection between health care systems and good health; the role of the provider-client relationship, especially in the areas of communications skills and the humanistic dimensions of patient care; the meanings of suffering, illness, and dying; the role of technology in improving care but creating a legacy of dehumanization of patients; and the role of the consumer in the health care system.

The minor entails successful completion of a minimum of 15 credit hours, distributed as follows:

Required Core Course

MH301 Perspectives on Health, Disease, and Healing (3 cr.) The course utilizes the perspectives of the humanities and social science disciplines to provide students with a broader understanding of the many facets of health and disease, suffering and dying, as well as the art and science of healing.

Electives

A minimum of 3 credit hours must be completed from *each* of the three following areas:

Humanistic Perspectives on Health Care

Communication Studies

C392 Health Communication (3 cr.)

G400 Health Provider-Consumer Communications (3 cr.)

Philosophy

P393 Biomedical Ethics (3 cr.)

History

H364 History of Medicine and Public Health (3 cr.)

Religious Studies

R385 Religion and Health (3 cr.)

Sociology

R327 Sociology of Death and Dying (3 cr.)

Social Scientific Perspectives on Health Care

Anthropology

A337 African American Health Care (3 cr.)

E421 The Anthropology of Aging (3 cr.)

E445 Medical Anthropology (3 cr.)

Economics

E387 Health Economics (3 cr.)

Geography

G410 Medical Geography (3 cr.)

Sociology

R285 AIDS and Society (3 cr.)

R321 Women and Health (3 cr.)

R381 Social Factors in Health and Illness (3 cr.)

R382 Social Organization of Health Care (3 cr.)

R410 Alcohol, Drugs, and Society (3 cr.)

R480 Sociology of Mental Illness (3 cr.)

R495 Topic: Women and Madness (3 cr.)

Other Electives

The remaining 3 credit hours of electives may come from the courses above or the following courses:

Medical Humanities and Health Studies

MH492 Topics in Medical Humanities and Health Studies (3 cr.)

MH498 Readings in Medical Humanities and Health Studies (1-3 cr.)

Nursing

K483 Bioethical Issues (3 cr.)

K492 Elective: Biomedical Ethics (3 cr.)

Z492 Human Sexuality and the Health Professional (3 cr.)

Political Science

Y200 Topic: U.S. Health Policy (1 cr.)

SPEA

H316 Introduction to Environmental Health (3 cr.)

H320 Introduction to Health Administration (3 cr.)

Women's Studies

W300 Topics: Perspectives in Women's Health (3 cr.)

Note: Other courses may be accepted upon approval of the Medical Humanities and Health Studies Committee. See the Medical Humanities and Health Studies Committee chairperson for information.

Required Exit Course**MH495 Independent Project Seminar in the Medical Humanities and Health Studies (3 cr.)**

Each student pursuing a minor degree in the Medical Humanities and Health Studies Program who has completed at least 9 credit hours toward the degree will take a seminar or be given the opportunity to

develop a research or applied project related to the interests of the Medical Humanities and Health Studies Committee. This seminar or project will allow the student to apply the knowledge gained from the course work taken in the Medical Humanities and Health Studies Program, serving to tie together the humanistic and social scientific bases of health care in a directed endeavor of interest to the student. The student should contact the chairperson to arrange the details of this independent project.

Museum Studies

Director Assistant Professor Elizabeth Kryder-Reid, *Anthropology/Museum Studies*

Professors Michael Cohen, *Education*; Susan Sutton, *Anthropology*

Associate Professors Jeanette Dickerson-Putman, *Anthropology*; Stephanie Dickey, *Art History*; Barbara Jackson, *Anthropology*; Elizabeth Brand Monroe, *History*; Kevin Robbins, *History*; Jean Robertson, *Art History*; Philip Scarpino, *History*; Robert Sutton, *Classical Studies*; Mary Tschirhart, *School of Public and Environmental Affairs*

Assistant Professors Paul Mullins, *Anthropology*

Adjunct Assistant Professors Jeffrey Bonner, *Indianapolis Zoological Society, Inc.*; Herminia Din, *The Children's Museum*; David Vanderstel, *The Polis Center, National Council on Public History*

Academic Advising: Cavanaugh Hall 419, (317) 274-1406

Department Web address: www.iupui.edu/~museum

Museum Studies provides an integration of museum history and theory with hands-on instruction in a variety of museum techniques and practices. It encompasses the scholarly exploration of museums, their history, operations, and role in society from an interdisciplinary perspective while also training students in the technical aspects of museum work such as collections care and management, administration, education, exhibit planning and design, and technology.

As an urban university, IUPUI is part of a community with a rich heritage of museums and cultural arts. The Museum Studies Program has developed collaborative relationships with area museums and developed an extensive network of adjunct faculty and guest lecturers who bring state-of-the-art museum practice to the curriculum. The program also offers extensive opportunities for learning through the resources of the museum community with experiences such as internships; collaboration on exhibit development and design; exhibition and collections focused courses; access to library, archival, study, and educational collections; collaboration with faculty on museum research projects; and participation in museum-sponsored seminars, lecturers, and professional meetings. The integral role of Indianapolis museums in the Museum Studies curriculum fosters a critical, reflective, and scholarly discourse on museums that is applied to current practices and issues in the field.

The program offers both an undergraduate and a graduate certificate. Students who are not pursuing the certificate are welcome in the classes.

Undergraduate Certificate in Museum Studies

The Museum Studies Program offers an 18 credit hour undergraduate certificate in Museum Studies designed to complement a baccalaureate degree and to prepare students for a career in museums or for further graduate study. Many of the courses take advantage of the excellent museum community in Indianapolis with behind-the-scenes tours of museums and guest lectures by experts in the field. The Museum Studies Program is interdisciplinary and draws students from the arts, humanities, and social sciences, as well as from the hard sciences.

The undergraduate core courses provide a firm introduction to the theory, methodology, and practice of museum work. A practicum in a museum provides the opportunity to apply skills, gain experience, and develop professional relationships. A range of electives are recommended to allow exploration of areas of interest, or to develop competency in a more specialized aspect of museum work.

The Undergraduate Museum Studies Certificate consists of a core of four courses (12 cr.) and a choice of two additional courses (6 cr.) from a list of Museum Studies courses. All of these courses must be passed with a grade of C or above in order to count for the certificate. Electives must be approved by the museum studies director prior to registration. Before enrolling in the Undergraduate Museum Studies Certificate program, IUPUI students must have completed 55 credit hours of university study with a minimum GPA of 2.0 and must have declared a major field of study.

A student's particular program is selected in consultation with the museum studies director. The following 18 credit hours of course work are designed to provide a firm introduction to the theory, methodology, and practice of museum work:

Museum theory (6 cr.): A403, H217

Museum methods (9 cr.): A405 and two of the following: A410, A412, A414, A416, A418 or an approved elective

Practical museum work (3 cr.): 3 credits required in a museum practicum (A408 or ANTH A494 as a museum-related project)

Graduate Certificate in Museum Studies (18 cr.)

The Graduate Certificate in Museum Studies provides students with interdisciplinary training in museum practice and a knowledge of contemporary issues in the museum field. It trains students in specialized aspects of museum practice such as education, exhibit planning and design, collections care, philanthropy, and non-profit management by combining Museum Studies course work with curriculum in other IU schools. Students are given an introduction to the history and philosophy of museums and an opportunity to focus on particular aspects of museum practice.

The graduate certificate may be taken as a freestanding credential or paired with graduate work in another related discipline. Because it offers an opportunity to specialize and does not require an internship, the graduate certificate is also a suitable credential for current museum professionals who wish to enhance their professional training or develop new specialties.

Undergraduate Museum Studies Core (12 cr.)

HIST H217 The Nature of History (3 cr.) An introductory examination of (1) what history is, (2) types of historical interpretation, (3) common problems in history, and (4) the uses of history.

MSTD A403 Introduction to Museum Studies (3 cr.) This survey of museology introduces students to the history of museums and to debates on the philosophical nature of museums and their roles in society. The course covers the types and definitions of

museums, traces the history of museums, discusses contemporary museum practice, and examines current issues in the museum profession.

MSTD A405 Museum Methods (3 cr.) This survey of museum practice introduces students to methods, skills, and resources in three areas of museum work: artifacts, interpretation, and organizational administration, as well as to the ethical ramifications of these methods.

MSTD A408 Museum Internship (1-6 cr.)

Authorization of the instructor required. An arranged learning experience in museum work appropriate to individual career goals focusing on an aspect of museum practice and working with a museum mentor. May be repeated. Prerequisites: A403 and A405, or consent of instructor. [Anthropology majors may register for ANTH A494 in lieu of this requirement.]

Museum Studies Undergraduate Courses (6 cr.)

Choose two of the following courses or from a list of approved electives. See program director for a current list of approved electives.

MSTD A410 Museum Education (3 cr.) This survey of museum education introduces students to a variety of professional skills through exercises, projects, museum visitor observation, and in-museum classes. It covers education theory most central to museum practice, the duties of museum educators, and current issues in museum education.

MSTD A412 Exhibit Planning and Design (3 cr.)

This course offers a survey of museum exhibit planning and design through an integration of theory and practice. The class introduces students to exhibit development, including exhibit administration, design, and evaluation, and to a variety of professional skills through hands-on exercises, exhibit critiques, museum observations, and in-museum classes.

MSTD A414 Museums and Technology (3 cr.)

This course surveys the growing use of technology in museums. It examines applications for information management in collections, conservation science, and archives. It examines critically the use of technology in the service of education both in exhibit contexts and in the variety of educational programs and web-based dissemination of knowledge.

MSTD A416 Collections Care and Management (3 cr.)

A survey of techniques for the management and care of collections in museums. It covers documentation, management of collections, processes, administrative functions, risk management, and ethical and legal issues. The course also covers the physical care and conservation of objects.

Graduate Core Curriculum (3 cr.)

MSTD A503 Introduction to Museum Studies (3 cr.) This survey of museology introduces students to the history of museums and to debates on the philosophical nature of museums and their roles in society. The course covers the types and definitions of museums, traces the history of museums, discusses contemporary museum practice, and examines current issues in the museum profession.

Museum Studies Graduate Courses (15 cr.)

Choose five of the following courses or from a list of approved electives. See program director for a current list of approved electives.

MSTD A505 Museum Methods (3 cr.) P: A503 or consent of instructor. This survey of museum practice introduces students to methods, skills, and resources in three areas of museum work: artifacts, interpretation, and organizational administration, as well as to the ethical ramifications of these methods.

MSTD A508 Museum Internship (1-6 cr.) P: A503 and two other Museum Studies graduate courses or consent of the instructor. Authorization of the instructor required. An arranged learning experience in museum work appropriate to individual career goals focusing on an aspect of museum practice and working with a museum mentor. May be repeated for a total of 6 credit hours.

MSTD A510 Museum Education (3 cr.) P: A503 or consent of the instructor. This survey of museum education introduces students to a variety of professional skills through exercises, projects, museum visitor observation, and in-museum classes. It covers education theory most central to museum practice, the duties of museum educators, and current issues in museum education.

MSTD A512 Exhibit planning and Design (3 cr.)

P: A503 or consent of the instructor. This course offers a survey of museum exhibit planning and design through an integration of theory and practice. The class introduces students to exhibit development, including exhibit administration, design, and evaluation, and to a variety of professional skills through hands-on exercises, exhibit critiques, museum observations, and in-museum classes.

MSTD A514 Museums and Technology (3 cr.)

This course surveys the growing use of technology in museums. It examines applications for information management in collections, conservation science, and archives. It examines critically the use of technology in the service of education both in exhibit contexts and in the variety of educational programs and web-based dissemination of knowledge.

AADM Y525 Museum Management (3 cr.) P: consent of instructor. Management of art and historical museums; the museum: its legal status, the building, management and staff, goals and objectives, fundraising and budgeting, collections and exhibition, education, and community outreach.

Philanthropic Studies

Chair of Faculty Debra Mesch

Graduate Program Director Richard C. Turner

Director of Academic Programs Dwight E. Burlingame

Executive Director, Center on Philanthropy at Indiana University Eugene R. Tempel

Professors Constance Baker, *Nursing*; Gerald Bepko, *Law*; Robert Bringle, *Psychology*; Dwight E. Burlingame, *Libraries*; William Cohen, *History*; Ulla Connor, *English*; Lawrence J. Friedman, *History (IUB)*; Kirsten Gronbjerg, *SPEA (IUB)*; Lawrence Jegen, *Law*; Patricia A. Keener, *Pediatrics*; Robert Lehn, *SPEA*; Leslie Lenkowsky, *Philanthropic Studies*; Angela McBride, *Nursing*; Astrid E. Merget, *SPEA (IUB)*; James Perry, *SPEA*; William M. Plater, *English*; James Riley, *History*; Herman Saatkamp, *Philosophy, Medical Humanities, Medical and Molecular Genetics*; William Schneider, *History*; David H. Smith, *Religious Studies (IUB)*; Richard Steinberg, *Economics*; Eugene R. Tempel, *Education*; Richard C. Turner, *English*; Brian Vargus, *Political Science*; Gerard Wedig, *SPEA*

Associate Professors Wolfgang Bielefeld, *SPEA*; Marc Bilodeau, *Economics*; James Capshaw, *History and Philosophy of Science (IUB)*; Judith A. Chafel, *Education (IUB)*; Karen Harlow, *SPEA*; Robert Katz, *Law*; Debra Mesch, *SPEA*; Kevin Robbins, *History*; Patrick Rooney, *Economics*; Robert Strikwerda, *Philosophy (IUK)*; Mary Tschirhart, *SPEA (IUB)*; Mark Wilhelm, *Economics*; Patricia Wittberg, *Sociology*

Assistant Professors David Craig, *Religious Studies*; Richard Gunderman, *Radiology*; Sheila Kennedy, *SPEA*; Elizabeth Kryder-Reid, *Anthropology and Museum Studies*; Una Okonkwo Osili, *Economics*; David Reingold, *SPEA (IUB)*; Nancy M. Robertson, *History*; Andrea Walton, *Education*

Adjunct Assistant Professors Robyn Gibboney, *Education*; Donald Hossler, *Education (IUPUI/IUB)*; Timothy Seiler, *Philanthropic Studies*; Lilya Wagner, *Philanthropic Studies*

Emeritus Faculty Roger Hamburg, Paul Nagy, Robert Payton, Jan Shipp, Sheldon Siegel

Philanthropic studies at Indiana University is interdisciplinary, interprofessional, and systemwide. The field addresses voluntary contributions of service and funds, voluntary associations, and what has been called "the social history of the moral imagination." Areas of inquiry range from the history of philanthropy and philanthropy in literature, in the School of Liberal Arts at IUPUI, to fundraising management and legal issues, in other schools at IUPUI and IU Bloomington. Undergraduate and graduate degrees, minors, and certificates in various areas of philanthropic studies are currently available in the School of Liberal Arts and in other schools at IUPUI and IU Bloomington. For more information, visit the Center on Philanthropy Web site at www.philanthropy.iupui.edu.

Minor in Philanthropic Studies

The undergraduate minor in philanthropic studies provides students with a general knowledge of the

history, culture, and values of philanthropy. The minor provides an interdisciplinary framework for School of Liberal Arts majors for whom the study of history, culture, civil society, or values overlaps their own disciplines. It also attracts students from other majors who wish to incorporate an interdisciplinary component into their professional training. Students should declare their intention to pursue the minor in a letter addressed to the chair of the philanthropic studies faculty.

Requirements for the minor include 15 credit hours. A grade of C or higher must be earned in each course counted toward the minor. Because the subject of philanthropy is inherently interdisciplinary, no more than two courses may be taken in any one department.

Students may petition the chair of the philanthropic studies faculty to replace an existing course option.

Core Courses

Students are required to include at least two of the following five courses:

AMST P320 Philanthropy in American Culture
ECON E414 Economics of Nonprofit Organizations
HIST H415 History of Philanthropy in the West
HIST A421 History of American Philanthropy
POLS Y378 Problems in Public Policy: Civil Society and Public Policy in the United States

Elective Courses

ENG L431 Topics in Literary Study: Philanthropy and Literature
PHIL P327 Philanthropy and Social Welfare
PHST P430 Topics in Philanthropic Studies
REL R366 Religion and Civil Society
SOC R295 Topics in Sociology: Sociology of Altruism, Voluntarism, and Pro-Social Behavior

Certificate in American Humanics

The American Humanics Certificate (AH) prepares undergraduate students to become skilled professionals and leaders in human service (nonprofit) organizations. Students develop a network of professional contacts, obtain on-the-job experience through an extensive internship and site visits, and acquire leadership skills through the AH student association. In addition, they have opportunities to explore careers, participate in community service projects, and engage in social activities. This certificate program is open to students pursuing a baccalaureate degree in any major. To obtain more information, contact the Center on Philanthropy at IUPUI by calling (317) 274-4200.

Master of Arts

The Master of Arts in Philanthropic Studies focuses on the history, culture, and values of philanthropy. Its objectives are to enable students to gain the knowledge and skills either to pursue further graduate study in relevant fields or to pursue careers in the independent sector or in related fields; to enable students to investigate the broader theoretical issues of philanthropy and of their chosen areas of specialization from a variety of disciplinary and interdisciplinary perspectives; and to utilize the interdisciplinary base to maintain a thorough critical inquiry into the historical and cultural implications of philanthropy.

Admission

Requirements include a bachelor's degree from an accredited college or university, minimum grade point average of 3.0 on a scale of 4.0, and a minimum grade point average of 3.0 in the student's major field. In addition, students seeking admission to the program should demonstrate an appropriate level of achievement on the Graduate Record Examination (or comparable proficiency test), and must arrange for three letters of recommendation to be addressed to the M.A. Program Admissions Committee.

Applicants who do not meet all of the requirements listed above may be admitted to the program on a provisional basis, in which case their status will be reviewed after a fixed period of time to determine whether they may continue in the program.

Financial Aid

Fellowships, scholarships, and graduate assistantships are available. Please contact Student Services in the School of Liberal Arts for more information.

Curriculum

The M.A. in Philanthropic Studies requires a total of 36 credit hours. This includes 18 credit hours of core courses, 12 credit hours of elective courses, and 6 credit hours of thesis or additional courses. A minimum of 18 credit hours in core and elective courses combined must be in the School of Liberal Arts at IUPUI, and not more than 9 credit hours may be taken in courses numbered below 500. These 9 credit hours may come only from courses approved for Graduate School credit. In addition, the student earns 6 credit hours either for a thesis on a topic approved by the M.A. Program Advisory Committee or for graduate-level courses in a field in which future study is planned. The approval process for the thesis or its alternative normally takes place after a student has successfully completed 15 credit hours of course work.

In order to earn the M.A. in Philanthropic Studies, students must maintain a minimum GPA of 3.0 on a scale of 4.0. Grades in courses counting for credit toward this degree may be no lower than C (2.0 on a scale of 4.0).

The 18 credit hours of core courses normally include Philanthropic Studies P521 The Nonprofit and Voluntary Sector; Philanthropic Studies P523 Civil Society and Philanthropy; History H509 History of Philanthropy in the West; Philosophy P542 Ethics and Values of Philanthropy; Philanthropic Studies P512 Human and Financial Resources for Philanthropy; and Philanthropic Studies P590 Internship in Philanthropic Studies. In addition, students will take one of the following: American Studies P520 Philanthropy in American Culture; Anthropology A509 Cross-Cultural Dimensions; SPEA V524 Civil Society in Comparative Perspective; or Religion R590 Religion and Philanthropy. Also, students must take either Economics E514 The Nonprofit Economy and Public Policy or Education C595 Legal Aspects of Philanthropy, as well as P600 M.A. Thesis in Philanthropic Studies (6 cr.).

Dual Degrees

The Philanthropic Studies program has developed dual degree opportunities with several schools and

departments. When approved, a dual degree provides a student with a program of study that leads to the M.A. in Philanthropic Studies and a master's degree in another discipline. Students must apply separately and simultaneously for a dual degree.

Economics (M.A. in Economics)
History (M.A. in History)
Nursing (M.S. in Nursing Administration)
School of Public and Environmental Affairs
(M.P.A. in Nonprofit Management)

For more information, contact Student Services in the Center on Philanthropy at (317) 684-8911.

Executive M.A. in Philanthropic Studies Program

Many students interested in the M.A. program are unable to attend on a traditional residential basis because of the distance from Indianapolis and their ongoing job responsibilities. To provide access to the M.A. in Philanthropic Studies at Indiana University for this growing constituency, the executive master's program was established in 1996. A participant in the executive master's program can finish the requirements for the degree usually in three years by completing:

An orientation before the first day of classes; six intense one-week sessions of residential study at IUPUI; distance education and directed off-site course work; and elective study at a qualified institution near the student's home.

Each summer course requires one week of intense on-campus study and is preceded by a preresidential period of approximately six weeks that includes preparatory reading and assignments. Each session is followed by a postresidential period that includes evaluative experiences to be completed at home. During both the preresidential and postresidential periods, faculty work with students by telephone, e-mail, fax, and mail.

Applicants for the executive program must meet the same admission criteria as those applying for the residential program with the addition of three to five years of work experience in the nonprofit sector being required. Deadline dates for admission are January 1 for non-U.S. citizens and February 1 for U.S. citizens.

For more information, contact the Center on Philanthropy, (317) 684-8911, or visit the Web site at www.philanthropy.iupui.edu.

Courses

P330 Topics in Philanthropic Studies (3 cr.) In-depth study of selected topics and issues in philanthropic studies. Specific topics vary by semester. May be repeated once for credit with a different course topic.

P430 Topics in Philanthropic Studies (3 cr.) This course offers an in-depth study of selected topics and issues in philanthropic studies. Specific topics vary by semester. Course may be repeated for credit with a different course topic.

P501-P502 The Philanthropic Tradition I-II (3-3 cr.) P: permission of the instructor. These interdisciplinary courses examine the core values of

philanthropy and the principal patterns of philanthropic behavior and organization with particular emphasis on the Western tradition and the American adaptation of it.

P512 Human and Financial Resources for Philanthropy (3 cr.) This course is designed to familiarize beginning graduate students with the three major areas subsumed under resources of the independent sector: volunteers, grant making, and financial resources obtained through a fundraising program. The course is divided into four parts to include the theoretical framework for the sector; government, corporate, and foundation resources; charitable donations by individuals; and volunteer management.

P521 The Nonprofit and Voluntary Sector (3 cr.) Students examine issues of why people organize, give, and donate time, theories of the sector, policy formulation in the sector, etc., with the objective of becoming "philanthropically literate."

P523 Civil Society and Philanthropy (3 cr.) The course explores the relationship of civil society to the state, how the nonprofit sector affects the state, and how the state regulates the sector. A continuing theme is how and whether the state and philanthropic institutions make civil investments in strengthening civil society.

P530 Topics in Philanthropic Studies (3 cr.) In-depth study of selected topics and issues in philanthropic studies. Specific topics vary by semester. Course may be repeated once for credit with a different course topic.

P555 Readings in Philanthropic Studies (1-4 cr.) P: permission of director. A tutorial course involving in-depth study and analysis of a specific topic in philanthropic studies, by arrangement with instructor.

P590 Internship in Philanthropic Studies (3 cr.) A course for the advanced student of philanthropy. Students work 10 hours per week for a voluntary association, applying knowledge gained in earlier courses to practical situations. Requirements include a journal and a substantial term paper.

P600 M.A. Thesis in Philanthropic Studies (3-6 cr.)

P690 Research in Philanthropic Studies (3 cr.) P: one semester of M.A. course work. Students research specialized topics related to philanthropic studies agreed upon with the instructor from and in their chosen disciplinary perspective. In some instances team research may be carried out. The course may be repeated once with approval by the chair of philanthropic studies.

Undergraduate and graduate degrees, minors, and certificates in various areas of philanthropic studies and nonprofit management are available at IUPUI and IU Bloomington. These include American Humanics, nonprofit management, Museum Studies, and the philanthropic studies minor. New courses and degree programs are developing rapidly. For up-to-date information, please contact Student Services for the Philanthropic Studies Program, (317) 684-8911 or www.philanthropy.iupui.edu.

Philosophy

Chair Professor Michael B. Burke

Professors Myles Brand, Michael Burke, Edmund Byrne (Emeritus), Anne Donchin (Emerita), Nathan Houser, Laurence Lampert, Eric Meslin, Paul Nagy (Emeritus), Herman J. Saatkamp Jr.

Associate Professors Robert Frye (Emeritus), Ursula Niklas, John Tilley

Assistant Professors André De Tienne, Richard Gunderman

Adjunct Professor Arthur Burks

Adjunct Assistant Professors Cornelis de Waal, Scott Massey

Academic Advising Cavanaugh Hall 331, (317) 274-8082 or (317) 274-2667

Philosophic inquiry aims, ultimately, at a general understanding of the whole of reality. It draws on the insights of the great historical philosophers, on what has been learned in all other major fields of study, and on the rich perspective embodied within our ordinary ways of thinking. Philosophers address a diverse array of deep, challenging, and profoundly important questions. Examples include the nature of the self and of personal identity; the existence or nonexistence of God; the nature of such phenomena as time, mind, language, and science; the sources and limits of human knowledge; the nature of the good life; the foundations of state authority; the requirements of social justice; and the nature of art, beauty, and aesthetic experience. Philosophical questions are addressed not by reference to empirical information alone, but by means of analysis, synthesis, argument, and the construction and evaluation of philosophical theories.

What attracts students to philosophy is the intrinsic interest of its subject matter. But the study of philosophy has practical benefits as well. Philosophy majors are practiced in the close reading of complex texts, in the careful analysis and evaluation of arguments, in original and creative thinking, and in the clear, precise, and persuasive communication of ideas. The skills thus acquired are not only a source of deep personal satisfaction, but a strong asset in any profession. That the study of philosophy is highly effective in enhancing academic skills is evidenced by the fact that philosophy majors receive exceptionally high scores on the Law School Admissions Test (LSAT), the Graduate Record Exam (GRE), and other standardized admissions tests.

Since philosophy examines the presuppositions and the basic concepts and methods of all other disciplines, a minor in philosophy can be the perfect complement to a major in any other field of study. In addition to the perspective it offers on other fields, a minor in philosophy sharpens intellectual skills, opens a broad intellectual vista, and affords an opportunity to consider fundamental questions of human concern.

Undergraduate Major in Philosophy

Requirements

A minimum of 24 credit hours in philosophy, including:

- (a) Either a survey of philosophy (P110 Introduction to Philosophy, S110 Introduction to Philosophy—Honors) or a basic course in ethics (P120 Ethics, S120 Ethics—Honors, P237 Environmental Ethics, P326 Ethical Theory, or P393 Biomedical Ethics)
- (b) A basic course in logic (P162 Logic or P265 Introduction to Symbolic Logic)
- (c) A minimum of 9 credit hours at the 300–400 level

To assure a properly balanced program of study, courses are to be selected in consultation with a departmental advisor.

Double Majors

Students planning to major in a discipline other than philosophy are encouraged to consider philosophy as a second major. Students planning such a double major should consult the Department of Philosophy about philosophy courses most suitable to their academic interests and career goals.

Undergraduate Minor in Philosophy

Requirements

A minimum of 15 credit hours in philosophy, including:

- (a) One course from each of at least two of these three groups of basic courses: (1) P110, S110; (2) P120, S120, P237, P326, P393; (3) P162, P265
- (b) A minimum of 6 credit hours at the 300–400 level

Ph.D. Minor in Philosophy

To earn a doctoral minor in philosophy at IUPUI a student outside the department must earn a minimum grade point average of 3.0 (B) in 13 credit hours of graduate-level courses, including 3 credits in the core course (P500), 6 in philosophical area and/or applied philosophy courses, and 4 in the culminating seminar (P730). See the department chair for details.

Departmental Honors Program

To provide superior students the option of advanced work in philosophy, the department offers H-Options in all 200 to 500-level courses other than P265. To graduate with honors in philosophy, a student must complete at least 24 credit hours of honors work, including at least 12 credit hours in philosophy and at least 6 credit hours outside philosophy, and must satisfy the requirements for a major in philosophy. The student must maintain a minimum overall grade point average of 3.3, with a 3.5 in philosophy and a 3.5 in honors courses. For further information, contact the department chairperson.

Undergraduate Courses

Honors Courses

S110 Introduction to Philosophy—Honors (3 cr.) This course is an introduction to key philosophical concepts and issues as well as major thinkers and historical periods.

S120 Ethics—Honors (3 cr.) A study of ethical values in relation to such problems as personal and societal decision making, selection and justification of lifestyle, goal orientation, conflict resolution, freedom and creativity, commitment and responsibility.

S314 Philosophy and Modern Times—Honors (3 cr.) A study of one or more philosophical concepts, themes, or developments characteristic of the modern period.

Regular Courses

P110 Introduction to Philosophy (3 cr.) An introductory study of such philosophical concerns as existence, knowledge, meaning, and morality.

P120 Ethics (3 cr.) A study of ethics in relation to personal and societal decision making. Typically addresses such topics as abortion, world hunger, assisted suicide, sexual morality, animal rights, moral education, virtue and character, and environmental ethics.

P162 Logic (3 cr.) A study of the principles of logic. The course covers a variety of traditional topics, selected for their practical value, within formal and informal logic. Among the topics typically covered are fallacies, syllogisms, causal hypotheses, logic diagrams, argument analysis, and truth-functional reasoning.

P237 Environmental Ethics (3 cr.) An introductory consideration of philosophical views regarding the extent of human responsibility for the natural environment.

P265 Introduction to Symbolic Logic (3 cr.) A study of the most important and widely applicable parts of modern symbolic logic: propositional logic and predicate logic.

P280 Philosophical Problems: (variable title) (3 cr.) A concentrated study of important attempts to solve some philosophical problem, or set of problems, that confronts the contemporary world. May be repeated for credit.

P281 Philosophy of Religion (3 cr.) Philosophical views regarding such topics as the meaning and purpose of religion, religious experience, religious knowledge, and the existence and nature of God.

P307 Classical Philosophy (3 cr.) A study of the significant texts of ancient Greek and Roman philosophy, including the Presocratics, Plato, Aristotle, and the Hellenistic Thinkers.

P314 Modern Philosophy (3 cr.) A study of Western philosophy from the rise of science to the disenchantment with absolutism, including such philosophers as Bacon, Descartes, Berkeley, Hume, Leibniz, Kant, and others.

P316 Twentieth-Century Philosophy: (variable title) (3 cr.) A study of one or more twentieth-century approaches to philosophy, such as pragmatism, analytic philosophy, phenomenology, existentialism, deconstructionist philosophy, or neo-Marxism. May be repeated for credit.

P317 Nineteenth-Century Philosophy (3 cr.) A historical survey of philosophy in the nineteenth century from Hegel to Nietzsche, including utilitarianism, positivism, and philosophies of evolution.

P322 Philosophy of Human Nature (3 cr.) Theories of human nature and their philosophical implications.

P323 Society and the State in the Modern World (3 cr.) An analysis of the modern state in relation to changing concepts of knowledge, ethical ideas, human nature, social classes, the family, and property.

P325 Social Philosophy: (variable title) (3 cr.) Concentrated study of one or more major problems, positions, or authors. May be repeated for credit when topics vary.

P326 Ethical Theory (3 cr.) A variable title course. Advanced consideration of one or more ethical theories or theoretical issues about the nature and status of ethics.

P331 Philosophy of Science (3 cr.) An introductory study of theories with regard to the nature, purpose, and limitations of science.

P358 American Philosophy (3 cr.) A study of the philosophical tradition in the United States, emphasizing major thinkers such as Peirce, Royce, James, Dewey, and Whitehead.

P365 Intermediate Symbolic Logic (3 cr.) P: P265. Topics in metalogic, set theory, and modal logic.

P367 Philosophy of the Arts (3 cr.) A study of the philosophy of the arts, designed to show the relationship of human creativity to political, moral, aesthetic, and cognitive value.

P368 Philosophy of Language and Communication (3 cr.) Philosophical study of such topics as meaning and truth, interpretation, language and gender, representation, and speech acts.

P369 Epistemology (3 cr.) Knowledge and justified belief: their nature, structure, sources, and limits.

P382 Philosophy of History (3 cr.) An analysis of some of the philosophical problems implicit in the study of history, such as the possibility of historical objectivity, and a survey of influential interpretations of history from Augustine to Heidegger.

P383 Topics in Philosophy: (variable title) (3 cr.) An advanced study of special, experimental, or timely topics drawn from the full range of philosophical discussion and designed to pursue interests unmet in the regular curriculum. May be repeated for credit.

P385 Metaphysics (3 cr.) A study of several of the principal problems of metaphysics, such as identity through time, the self, the mind-body problem, freedom and determinism, fate, causation, the problem of universals, and the existence of God.

P393 Biomedical Ethics (3 cr.) A philosophical consideration of ethical problems that arise in current biomedical practice, e.g., with regard to abortion, euthanasia, determination of death, consent to treatment, and professional responsibilities in connection with research, experimentation, and health care delivery.

P394 Feminist Philosophy (3 cr.) An examination of philosophical problems embedded in feminist theories, particularly those relating to the nature/nurture distinction, the value of sex-specific experiences such as motherhood, and conditions for achieving a just social order.

P414 Philosophy and Culture (3 cr.) In-depth consideration of a topic involving the interrelationship between philosophy and culture. May be repeated for credit.

P418 Seminar in the History of Philosophy: (variable title) (3 cr.) A concentrated study of one major philosopher or philosophical school whose ideas have helped to form our age and contribute to an understanding of its problems. May be repeated for credit.

P448 Seminar in American Philosophy (3 cr.) An intensive study of a major American thinker, such as Edwards, Royce, James, Peirce, Dewey, or Whitehead, or of a leading theme, such as community, experience, or education. May be repeated for credit.

P468 Seminar in the Philosophy of Mind (3 cr.) An in-depth study of some particular problem of current concern in one of the following: theory of meaning, conceptual analysis, information theory, theory of action, artificial intelligence. May be repeated for credit.

P488 Research in Philosophy I (1-4 cr.) P: 9 credit hours of philosophy and consent of instructor. Independent research in philosophical theory approved by and reported to any member of the department. May be repeated for credit, but no more than 6 credit hours may be counted toward the major.

P489 Research in Philosophy II (1-4 cr.) P: 9 credit hours of philosophy and consent of instructor. Independent research in applied philosophy approved by and reported to any member of the department. May be repeated for credit, but no more than 3 credit hours may be counted toward the major.

Graduate Courses

P500 Philosophy Pro-Seminar (3 cr.) An advanced survey of areas and issues addressed in philosophy. Principal objective: to familiarize the post-baccalaureate student with the range and diversity of contemporary philosophical discourse.

P520 Philosophy of Language (3 cr.) Advanced study of selected topics.

P522 Topics in the History of Modern Philosophy (3 cr.) Selected topics from the philosophies of one or more of the following: Continental rationalists (Descartes, Spinoza, Leibniz), British empiricists (Locke, Berkeley, Hume), and Kant. May be repeated twice with consent of instructor(s).

P540 Contemporary Ethical Theories (3 cr.) Fundamental problems of ethics in contemporary analytic philosophy from G. E. Moore's *Principia Ethica* to present.

P542 The Ethics and Values of Philanthropy (3 cr.) An inquiry into the ethics and values of philanthropy rooted in a general understanding of philanthropy, as voluntary action for the public good, as an ethical ideal. A consideration of philanthropic activity in light of this ideal.

P543 Contemporary Social and Political Philosophy (3 cr.)

P560 Metaphysics (3 cr.) In-depth discussion of representative contemporary theories.

P562 Theory of Knowledge (3 cr.) Advanced study of selected topics.

P590 Intensive Reading (1-4 cr.) A tutorial course involving in-depth consideration of a specific philosophical area or problem or author. May be repeated for credit.

P694 Biomedical Ethics (3 cr.) A rigorous examination of bioethical theory and practice. Stress is placed on moral and conceptual issues embedded in biomedical research, clinical practice, and social policy relating to the organization and delivery of health care.

P730 Seminar: Contemporary Philosophy (4 cr.) Selected topics on the works of twentieth-century philosophers.

P748 Seminar in American Philosophy (3 cr.) Advanced study of a principal philosopher or a set of selected topics in classical American philosophy.

Political Science

Chair Professor William Blomquist

Professors John C. Buhner (Emeritus), Richard Fredland (Emeritus), Patrick McGeever (Emeritus), Stephen Sachs (Emeritus), Brian Vargus, James Wallihan

Associate Professors William A. Blomquist, John McCormick, Charles Winslow (Emeritus)

Assistant Professors Ellen Andersen, Margaret Ferguson, Scott Pegg

Adjunct Professors Leslie Lenkowsky, Sheila Suess Kennedy

Academic Advising Cavanaugh Hall 504J, (317) 274-7387

Politics is about power: who has it and how it is used. The goal of the Department of Political Science is to provide students with a superior program of study into the many different and intriguing ways in which power is given, taken, distributed, limited, manipulated, and used, and to help them better appreciate and understand the many different forms taken by systems of government around the world.

The department offers introductory courses in all the major subfields of the discipline: American politics, public policy, political theory, comparative politics, and international relations. We also offer a wide variety of advanced courses in which students can learn more about topics as varied as Indiana state government; national politics in Washington, D.C.; the political systems of Africa, Asia, and Europe; the mechanics of voting and public opinion; and critical policy issues of our time, such as welfare, crime, the environment, and women in politics. Our students also derive hands-on experience through internships and multicollge political simulations.

Our majors have gone on to careers in fields as diverse as politics, business, teaching, human services, the media, and working for interest groups, and many have gone on to graduate school in politics and law. Courses in political science help majors and nonmajors alike become critical observers of—and informed participants in—politics and government at the local, national, and international level.

Major in Political Science

In addition to the basic School of Liberal Arts requirements (listed elsewhere in this bulletin), the political science major must do the following:

1. Complete 30 credit hours in political science with at least a C grade in each course. Those 30 credit hours are part of the 122 credit hours needed for the B.A. degree in liberal arts.
2. Complete the following specific requirements:
9 credit hours: Y103, Y215, and Y217
6 credit hours chosen from Y205, Y211, Y213, and Y219
12 credit hours from 300 level and above (no more than 6 of these hours from Y480, Y481, and Y498)
3 credit hours: Y490

Transfer students only: Transfer students from either another Indiana University campus or from another institution must take a minimum of 9 credit hours of 300 to 400 level (junior-senior) political science courses at IUPUI. These courses must be of regular

classroom format (not readings or research); they may include a seminar, if needed.

Minor in Political Science

The political science minor consists of 15 credit hours with a concentration in one of three areas: American government, comparative politics, or international relations.

Only courses with a grade of C and above are acceptable. Six of the 15 credit hours must be completed in residence. Students must file with the Department of Political Science their declaration of intent to complete a minor. Records are kept nowhere else.

American Government

Required are:

Y103

6 credit hours from 300-level courses in American government or Y200, as appropriate

6 credit hours of political science electives

Comparative Politics

Required are:

Y217

6 credit hours from 300 level courses in comparative politics or Y200, as appropriate

6 credit hours of political science electives

International Relations

Required are:

Y219

6 credit hours from 300 level courses in international relations or Y200, as appropriate

6 credit hours of political science electives

Interdisciplinary Minors

There are three minor programs with a political science component that may interest political science students: the international studies minor, legal studies minor, and urban studies minor. Information about each of these minors can be found on their respective pages of this bulletin.

Certificate in Paralegal Studies

Advisor for Paralegal Studies Professor William Blomquist, Department of Political Science

The School of Liberal Arts offers a credit certificate in paralegal studies, which students may combine with any other degree programs or major. The credit certificate program parallels the noncredit program available through the School of Continuing Studies, and represents a partnership between the two schools.

The 27 credit hour certificate includes 9 credit hours of required course work and 18 credit hours chosen by the student from a set of elective courses listed below. Students must receive a grade of C or better in each course they intend to apply toward the certificate.

Because of the demands of the required courses for the certificate, there are prerequisites that students must satisfy prior to undertaking the course work for the certificate: they should have college-level writing proficiency, computing proficiency, and should have completed Y211: Introduction to Law.

Required Courses (9 credit hours):

PHIL P222 Legal Ethics (3 cr.)

POLS Y221 Legal Research and Writing for Paralegal Studies (3 cr.)

POLS Y222 Litigation for Paralegal Studies I (3 cr.)

Elective Courses (18 credit hours from the following):

POLS Y223 Litigation for Paralegal Studies II (3 cr.)

POLS Y224 Property Law for Paralegal Studies (3 cr.)

POLS Y225 Contract Law for Paralegal Studies (3 cr.)

POLS Y226 Tort Law for Paralegal Studies (3 cr.)

POLS Y227 Criminal Law for Paralegal Studies (3 cr.)

POLS Y228 Family Law for Paralegal Studies (3 cr.)

POLS Y229 Estate Law for Paralegal Studies (3 cr.)

POLS Y230 Bankruptcy Law for Paralegal Studies (3 cr.)

POLS Y231 Advanced Legal Writing (3 cr.)

BUS L203 Commercial Law I (3 cr.)¹

BUS L303 Commercial Law II (3 cr.)¹

Students who have questions about the Certificate in Paralegal Studies, or who wish to declare and pursue the certificate, should contact the advisor for paralegal studies.

Courses

Courses offered only occasionally are marked by an asterisk.

Y101 Principles of Political Science (3 cr.) For any student interested in better understanding the political world in which we live. The course explains some fundamental political concepts such as power, conflict, authority, and governments. It may also include an overview of the major subfields of political science: comparative politics, international relations, political theory, and public policy.

Y103 Introduction to American Politics (3 cr.) Introduction to the nature of government and the dynamics of American politics. Origin and nature of the American federal system and its political party base. (When offered, S103 Introduction to American Politics—Honors is an equivalent.)

Y200 Contemporary Political Topics: (variable title) (1-6 cr.) Involves an intensive analysis and discussion of selected contemporary political problems. The topics, which may vary from semester to semester, are listed in the class schedule. The course may be repeated up to a maximum of 6 credit hours. Recent topics have included problems of poverty, political protest, women in politics, citizens and the news, and problems of developing areas.

Y205 Elements of Political Analysis (3 cr.) Introduction to the major approaches to and techniques of the systematic study of political science. Includes introduction to analysis of quantitative political data.

Y211 Introduction to Law (3 cr.) An introduction to law as an aspect of government and politics, and as a means for dealing with major social problems. Students will study legal reasoning, procedures, and materials, and may compare other nations' legal systems. The course usually includes a moot court or other forms of simulation.

Y213 Introduction to Public Policy (3 cr.) Studies the processes and institutions involved in the formation of public policy with particular reference to the United States. The course will identify key policy actors, analyze the process of policy making, and

¹The Kelley School of Business requires students to have sophomore standing before taking L203 and junior standing before taking L303.

critically assess selected policy issues (such as foreign, defense, economic, welfare, and environmental policy).

Y215 Introduction to Political Theory (3 cr.) An introduction to major ideas and theories in Western political thought, including theories of democracy and the analysis of conflict and cooperation. The course also addresses the attempts made by prominent political philosophers—from Aristotle and Plato to Locke, Marx, and Rawls—to understand and describe the nature of politics.

Y217 Introduction to Comparative Politics (3 cr.) A course that introduces students to the major political systems of the world. Students will look at different system types, examine in depth particular countries as case studies such as Britain, Russia, and Mexico, and compare executives, legislatures, elections, political parties, interest groups, and key areas of public policy.

Y219 Introduction to International Relations (3 cr.) An introduction to the global political system, and issues that shape relations among countries. The course looks at problems of conflict resolution, the role of international law and organizations, the challenges of poverty and development, and the other major policy issues over which nations cooperate, argue, or go to war.

Y221 Legal Research and Writing for Paralegal Studies (3 cr.) P: Y211. Development of research and communication skills special to the area of law. Includes methods of organizing and conducting legal research, resources available for legal research, presentation of findings in memoranda and briefs, other forms of legal writing.

Y222 Litigation for Paralegal Studies I (3 cr.) P: Y211 and Y221. This course examines the processing of a case from initial client interviews to final disposition. It includes drafting of complaints, answers, counterclaims, interrogatories and other discovery tools, gathering of evidence, and motions and judgments. Both Indiana and federal rules of evidence are emphasized.

Y223 Litigation for Paralegal Studies II (3 cr.) P: Y211, Y221, and Y222. This elective course in advanced litigation focuses primarily on aspects of trial preparation not covered in depth in Y222. Topics may include jury selection, witness preparation and examination, preparation of evidence for use at trial, jury instructions, post-judgment relief.

Y224 Property Law for Paralegal Studies (3 cr.) P: Y211 and Y221. This course examines the legal rules governing various types of property and the ways in which human beings relate to property. Types of property include real and personal; relationships to property include both ownership and interest. Emphasis is placed on forms and procedures used in Indiana.

Y225 Contract Law for Paralegal Studies (3 cr.) P: Y211 and Y221. This course includes the basic elements and principles involved in the drafting, interpretation, and enforcement of contracts, including current trends in contract law in Indiana. Includes Uniform Commercial Code.

Y226 Tort Law for Paralegal Studies (3 cr.) P: Y211 and Y221. This course reviews current law and

recent trends in negligence and liability. Different dimensions of liability are covered. Emphasis on conduct of a tort case from initiation through relief, and on the responsibilities of legal assistants therein.

Y227 Criminal Law for Paralegal Studies (3 cr.)

P: Y211 and Y221. This in-depth review of criminal law in Indiana covers the Indiana Criminal Code—infractions, misdemeanors, and felonies. The course emphasizes real situations that legal professionals encounter throughout the process.

Y228 Family Law for Paralegal Studies (3 cr.)

P: Y211 and Y221. This course examines legal rules and procedures concerning domestic relations. Topics covered include separation and divorce, adoption, child custody and support, and other areas of domestic relations in Indiana.

Y229 Estate Law for Paralegal Studies (3 cr.)

P: Y211 and Y221. This course reviews legal rules and procedures concerning the transfer of property upon the owner's demise. Provides a practical approach to the language, procedures, forms, interpretation, and administration of wills and trusts. Emphasis on current trends in Indiana and federal law.

Y301 Political Parties and Interest Groups

(3 cr.) Theories of American party activity; behavior of political parties, interest groups, and social movements; membership in groups; organization and structure; evaluation and relationship to the process of representation.

Y302 Public Bureaucracy in Modern Society

(3 cr.) Examines public bureaucracy, with special emphasis on the United States, as a political phenomenon engaging in policy making and in the definition of the terms of policy issues. Considers the role of bureaucratic instruments in promoting social change and in responding to it.

***Y303 Formation of Public Policy in the United States (3 cr.)**

Processes and institutions involved in the formation of public policy in American society.

Y304-Y305 Judicial Process and American

Constitutional Law I-II (3-3 cr.) Nature and function of law and judicial process; selected Supreme Court decisions interpreting American constitutional system.

Y306 State Politics in the United States (3 cr.)

Comparative study of politics in the American states. Special emphasis on the impact of political culture, party systems, legislatures, and bureaucracies on public policies.

Y307 Indiana State Government and Politics

(3 cr.) Constitutional foundations, political development, organizational and functional process and growth, and current problems of Indiana government. Readings, case studies, problems.

Y308 Urban Politics (3 cr.)

Political behavior in modern American communities; emphasizes the impact of municipal organization, city officials and bureaucracies, social and economic notables, political parties, interest groups, the general public, and protest organizations on urban policy outcomes.

Y310 Political Behavior (3 cr.)

P: Y205. A research course in which students design and execute their own investigations into political phenomena.

Y311 Democracy and National Security (3 cr.)

Exploration of a basic dilemma of a democratic polity: How can demands for national security be reconciled with democratic practices and values? Concepts of civil-military relations, national security structure, professional and political commitments of the military, human resource utilization, popular control of policy, and the nature of individual liberty.

Y313 Environmental Policy (3 cr.)

Examines the causes of environmental problems and the political, economic, social, and institutional questions raised by designing and implementing effective policy responses to these problems.

Y314 Global Environmental Policy (3 cr.)

Examines the politics of global environmental problems. Assesses the causes, nature, and consequences of these problems, existing and potential institutional and legal responses, and the possibility of reconciling conflicts surrounding the management of shared resources and the global commons.

Y317 Voting, Elections, and Public Opinion

(3 cr.) Determinants of voting behavior in elections.

The nature of public opinion regarding major domestic and foreign policy issues; development of political ideology; other influences on the voting choices of individuals and the outcomes of elections; relationships among public opinion, elections, and the development of public policy.

Y319 The United States Congress (3 cr.)

This course offers students the opportunity to study the legislative branch of American national government. It includes the structure and processes of the Senate and House of Representatives, the role of parties, interest groups, and lobbyists, the legislative process, and the relations of Congress with the other branches of government.

Y320 Judicial Politics (3 cr.)

Examines the American judicial system in the contemporary context. Analysis of the trial and appellate courts with a focus on the United States Supreme Court. Topics include analyses of the structure of the judicial system, the participants in the system, and the policy-making processes and capabilities of the legal system. The course concludes with an assessment of the role of courts in a majoritarian democracy.

Y321 The Media and Politics (3 cr.)

Examines the contemporary relationship between the media and politics, including politicians' use of the media, media coverage of governmental activities, and media coverage of campaigns and elections. Course focuses primarily on the United States, but includes comparative perspectives.

Y322 The American Presidency (3 cr.)

This course examines the evolution of the presidency and its impact on the rest of the American political system. Students will study presidential selection, succession, and powers, the president's relationship to the rest of the government, and the legacy of presidents from George Washington to Bill Clinton.

***Y324 Women and Politics (3 cr.)**

Analysis of women in contemporary political systems, domestic or foreign, with emphasis on political roles, participation, and public policy. Normative or

empirical examination of how political systems affect women and the impact women have on the system(s). Topics vary by semester. May be repeated once for credit with a different topic.

***Y332 Russian Politics (3 cr.)**

Political process and government structure in the Russian state. Political institutions inherited from tsarist empire and the Soviet state (1917-1991), history of subsequent political reform. Political problems of ethnic conflict, creating democratic institutions, and transition from socialism to market economy.

Y335 West European Politics (3 cr.)

Development, structure, and functioning of political systems, primarily in France, Italy, and Germany. Political dynamics of European integration.

Y336 Southeast Asian Political Systems (3 cr.)

Covers the governmental organization, and the political behavior and traditions, of countries in the Southeast Asian region. Addresses regional issues of political and economic development, and international issues regarding the relationship of the region to the rest of the world.

***Y337 Latin American Politics (3 cr.)**

Comparative analysis of political change in major Latin American countries, emphasizing alternative explanations of national and international developments; examination of impact of political parties, the military, labor and peasant movements, Catholic church, multinational corporations, regional organizations, and United States on politics; public policy processes in democratic and authoritarian regimes.

Y338 African Politics (3 cr.)

Politics in contemporary sub-Saharan Africa. Topics include processes of nation building, dependency and underdevelopment; role of political parties, leadership, ideology, and military rule; continuing relevance of colonial heritage and traditional culture; network of international relations; and special situation of South Africa.

Y339 Middle Eastern Politics (3 cr.)

Political culture and change in selected Middle Eastern and North African countries. Topics include political elites, traditional cultures, modern political ideology, institutions of political control, conflict management, and social reform policies.

***Y341 Authoritarian Regimes (3 cr.)**

Comparative study of fascism, Nazism, and communism as institutional arrangements for governing modern societies. The political process in the one-party "movement regime."

***Y343 Developmental Problems of the Third**

World (3 cr.) Economic, political, and social change in less developed countries. Problems of measurement, control and explanation of economic development, and interrelated political-administrative change. Internal and external pressures on development.

***Y345 Contemporary Revolutions (3 cr.)**

A comparative study of revolutions and revolutionary movements in the twentieth century, incorporating (a) case studies, encompassing developing and defeated movements as well as victorious ones, and

(b) comparative treatment of selected “issues in revolution” (e.g., popular participation; organization and leadership; treatment of opposition; economic and cultural transformation).

Y350 European Integration (3 cr.) Study of the politics of the European Union (EU). This course assesses the process and dynamics of economic and political integration in Western Europe, the structure and work of EU institutions, and public policies of the EU.

Y351 Political Simulations (1-3 cr.) A course tied to simulations of political organizations such as the European Union, the United Nations, or the Organization of American States. May be taken alone or in conjunction with related political science courses. May be repeated for credit.

Y360 U.S. Foreign Policy (3 cr.) Analysis of institutions and processes involved in the formation and implementation of American foreign policy. Emphasis is on post–World War II policies.

***Y371 Workshop in International Topics and American Foreign Relations (3 cr.)** Sovereignty, nationalism, imperialism, collective security, race, culture, international trade, population, war.

Y373 American Politics through Film and Fiction (3 cr.) Recurrent themes of politics are explored in depth—by means of novels, short stories, and films. Subject matter varies by semester—check class schedule for current semester.

Y374 International Organization (3 cr.) Examines assumptions about the causes, functions, results, and structures of international (intergovernmental) organizations. Theory is combined with case study of the United Nations particularly. The European Community and regional organization examples provide a basis for understanding an evolving phenomenon.

Y376 International Political Economy (3 cr.) Theories about the interaction between the international economic and political systems are the subject of this course. Works from each of the main traditions—liberal, Marxist, and statist—will be assigned. Specific topics covered will include the politics of trade, aid, foreign investment, and international monetary affairs; theories of dependency and imperialism; the politics of international competition in specific industries; the stability/instability of international economic regimes.

Y378 Problems in Public Policy: (variable title) (3 cr.) Examines various substantive problems in the formulation of and conceptualization of public policy. Both the policy and its impact are considered in the context of the entire political environment in which it operates. Examples are selected from various levels of government, not always confined to the United States. May be repeated once for credit.

Y380 Selected Topics in Democratic Government: (variable title) (3 cr.) An examination of basic problems and issues in the theory and practice of democratic government. Specific topics vary by semester. May be repeated once for credit.

Y381 History of Political Theory I (3 cr.) An exposition and critical analysis of the major political philosophers and philosophical schools from Plato to Machiavelli.

Y382 History of Political Theory II (3 cr.) An exposition and critical analysis of the major philosophers and philosophical schools from Machiavelli to the present.

Y383 American Political Ideas I (3 cr.) American political ideas from the founding period to the Civil War.

Y384 American Political Ideas II (3 cr.) American political ideas from the Civil War to the present.

Y391 Political Decision Making (3 cr.) Survey of formal models of decision making in the political process: strategy, bargaining, and coalitions. Theories of rational choice in politics. Applications of game theory to the study of politics.

***Y394 Public Policy Analysis (3 cr.)** Place of theory and method in examining public policies in relation to programs, institutional arrangements, and constitutional problems. Particular reference to American political experience.

Y480 Undergraduate Readings in Political Science (1-6 cr.) Individual readings and research.

Y481 Field Experience in Political Science (3-6 cr.) P: certain internship experiences may require research skills. Faculty-directed study of aspects of the political process based on field experience. Directed readings, field research, research papers.

Y490 Senior Seminar (3 cr.) Open only to senior majors. Research paper required. Seminar sessions arranged to present papers for evaluation and criticism by fellow students.

Y498 Readings for Honors (1-6 cr.) Open only to senior majors in the department who have at least a 3.3 grade point average within the major; approval of department is required. Course involves an intensive individual program of reading and/or research.

Y570 Introduction to the Study of Politics (3 cr.) Problems of graduate study and professional scholarship; central organizing concepts and the use of theory in political science and related disciplines; specialized areas of research and scholarship in political science; conditions of scientific inquiry and methodological problems in the study of political phenomena; central importance of theory in explanation.

Y575 Political Data Analysis I (3 cr.) Basic quantitative analysis techniques applied to political science data: principles of measurement, tables, graphs, probability distributions, nonparametric statistics, matrix algebra, Markov chains, correlations and simple regression, tests of significance. Computer processing of data and applications of bivariate statistics to problems in political science emphasized.

Religious Studies

Chair Professor Rowland A. Sherrill

Professors William J. Jackson, E. Theodore Mullen Jr., Rowland A. Sherrill

Associate Professors Thomas J. Davis, Philip K. Goff

Assistant Professor David M. Craig

Academic Advising: Cavanaugh Hall 335, (317) 274-1465

Religious studies offers students opportunities to explore the patterns and dimensions of the many different religious traditions of the world from the perspectives of the academic study of religion. The courses are designed to help students develop basic understandings of the many ways in which religions shape personal views of the world, create and sustain the communities in which we live, and interact with politics, economics, literature and the arts, and other structures of society. Through this curriculum, students are provided the skills that will allow them to understand religions as a part of the study of human history and traditional and nontraditional values. The department offers both a major and a minor, allowing students to investigate religious phenomena in depth and encouraging connections with other areas of the humanities and social sciences.

Program Planning

In the degree programs, the Department of Religious Studies pays special attention to the student's expressed hopes and plans, and the faculty counsels its majors carefully toward that end. Thus, students can construct undergraduate programs of study that meet both personal goals and the faculty's sense of what constitutes a coherent and focused concentration in religious studies. With these possibilities in mind, students are encouraged to declare their intentions to major as early as possible in their college careers.

Those students who choose to major in the department are invited first to explore courses, designated by the faculty, to introduce the wide breadth of concerns that belong to the field—religious, social, and comparative ethics; scriptures and traditions; South Asian and comparative studies; religion and American literature and culture.

On the basis of these studies, students are then able to pursue more specialized courses of inquiry, depending on their personal interests and concerns. The faculty stands prepared to help in this regard by presenting more selective and rigorous options within the department, by helping to locate ties with cognate areas in other departments and schools, and by working with upper-level students in courses of independent study.

Major in Religious Studies

Requirements

Beyond the general distribution and credit hour requirements for the Bachelor of Arts degree, students who choose to major in religious studies will be asked to complete 30 credit hours of course work designated by the faculty as follows: 15 credit hours will be selected from the category of “Religious Traditions” and 12 credit hours from “Comparative

and Thematic Studies"; 3 credit hours in the departmental senior seminar (R433); and at least 18 credit hours are to be taken at the 300 level or above. For details concerning the designated courses and the junior-level courses, students should contact the departmental chairperson.

Double Majors

Students wishing to acquire double majors in religious studies and a second subject area will need to fulfill all of the above requirements, as well as those of the second subject area; will need an academic advisor for each major; and will need to file their plans for a double major with the recorder of the School of Liberal Arts.

Minor in Religious Studies

A minor in religious studies, recorded on a student's transcript, will ordinarily require that the student fulfill 15 credit hours in courses in the department, divided as follows: 15 credit hours from the departmental curriculum approved by the departmental advisor; at least 3 of these credits must be taken at the 100 level and 6 credit hours at the 300 level. For details, students should contact the departmental chairperson.

Courses

R100 Studies in Religion (3 cr.) Select introductory issues in religion. Interdisciplinary in emphasis. May be repeated for up to 9 credit hours under different titles.

R111 The Bible (3 cr.) A critical introduction to the major periods, persons, events, and literatures that constitute the Bible; designed to provide general humanities-level instruction on this important text.

R120 Images of Jesus (3 cr.) This course is designed to introduce students to the variety of traditions about the figure of Jesus. It will acquaint students with the wide array of images of the Jesus character through a historical analysis of these images portrayed in texts, art, music, film, and TV.

R133 Introduction to Religion (3 cr.) Introduction to the diversity of traditions, values, and histories through which religion interacts with culture. Emphasis on understanding the ways the various dimensions of religion influence people's lives.

R173 American Religion (3 cr.) A consideration of American religion, with particular emphasis on the development of religious diversity and religious freedom in the context of the American social, political, and economic experience. Special attention will be directed to changes in Roman Catholicism and Judaism as well as to alterations in the nature of American Protestantism.

R180 Introduction to Christianity (3 cr.) Survey of beliefs, rituals, and practices of the Christian community with a focus on the varieties of scriptural interpretation, historical experience, doctrine, and behavior.

***R200 Studies in Religion (3 cr.)** Select intermediate studies in religion. Interdisciplinary studies emphasized. May be taken for up to 9 credit hours under different titles.

R212 Comparative Religions (3 cr.) Approaches to the comparison of recurrent themes, religious attitudes, and practices found in selected Eastern and Western traditions.

R223 Religion and Imagination (3 cr.) Introductory studies of the nature, function, and significance of myths, symbols, and images in religious and cultural systems, with examples drawn from various traditions and with special attention devoted to their relationships to the contemporary imagination.

R283 Religions, Ethics, and Values (3 cr.) Cultural, historical, logical, psychological, and social relationships between religious and social as well as personal moral values and systems of ethics in traditional and contemporary Western culture.

R293 Ethics of World Religions (3 cr.) Key figures, literatures, movements, and changes in the world's major systems of religious ethics, with select illustrations drawn both from Asia (Hindu, Buddhist, Confucian, Taoist) and the West (Jewish, Christian, Muslim).

***R300 Studies in Religion (3 cr.)** Selected topics and movements in religion, seen from an interdisciplinary viewpoint. May be repeated twice under different titles.

R303 Religions in the Making (3 cr.) Examination within a broad historical and social-scientific framework of selected religions at the time of formulation and/or during periods of substantive change. Considered will be exemplary ancient and modern movements drawn both from literate and preliterate cultures and from Eastern and Western religious traditions.

R310 Prophecy in Ancient Israel (3 cr.) The prophetic movement and its relationship to religious, social, and political traditions and institutions in the ancient Near East. The thought of major prophetic figures in Israel, such as Hosea, Isaiah, Jeremiah, Ezekiel.

R312 American Religious Lives (3 cr.) A study of selected persons who shaped the religious ideas and practices of the American people. The course correlates the lives, ideas, and social contexts of influential religious leaders in the United States. Figures such as Jonathan Edwards, Abraham Lincoln, Dorothy Day, Isaac M. Wise, and Martin Luther King Jr. will be included.

R313 Religion and American Ideas (3 cr.) Studies of the major figures and works of the American literary and theological traditions, with focus on the ways the literary imagination has variously expressed, explored, and challenged the religious meanings of the American experience.

R315 Hebrew Bible (3 cr.) A critical examination of the literary, political, and religious history of Israel from the period of the Patriarchs to the Restoration, with emphasis on the growth and formation of the major traditions contained in the Hebrew Bible.

R316 New Testament (3 cr.) An examination of the history, culture, and literature of the New Testament period, with special emphasis on the emergence of early Christian beliefs.

R319 Origins of Israel (3 cr.) An investigation of the problems involved in the reconstruction of early Israelite history, religion, and society. Major emphasis on the ways in which modern scholarship has attempted to interpret the biblical traditions dealing with the Patriarchs, the exodus-Sinai events, and the settlement in the land.

R320 Development of the Jesus Traditions (3 cr.) Types of traditions about Jesus: their origins, development, and functions in early Christianity, compared with similar forms of traditions in non-Christian movements.

R325 Paul and His Influence in Early Christianity (3 cr.) Life and thought of Paul, in the context of first-century Christian and non-Christian movements. Development of radical Paulinism and anti-Paulinism in the second century; their influence on the formation of Christianity.

R326 Studies in Biblical Religion (3 cr.) Examination of selected major topics in the religious traditions contained in the biblical materials. Topics such as the following will be treated: early Hebrew traditions and heroes, the kings of Israel, the development of apocalyptic literature, the period between the testaments, the development of Christology, the Johannine School, and others. May be taken twice for credit under different topics.

R329 Early Christianity (3 cr.) This course introduces the religious world of early Christianity by examining its formation and development. The course emphasizes intellectual history while placing religious ideas in historical, cultural, social, and economical contexts. It underscores diversity and explores how ideas shape religious faith, how religious practice guides religious thinking, and how culture and religion interact.

R339 Varieties of American Religion (3 cr.) Approaches to the diversity and complexity of that part of American religion that has existed outside of the mainstream of U.S. church life. Emphasis on the origin, history, organizational structures, beliefs, and devotional practices of such groups as the Quakers, Shakers, Millerites and other millenarian sects, Mormons, Christian Scientists, Pentecostals, as well as groups whose orientation is Eastern rather than Western.

R343 Religion and Contemporary Thought (3 cr.) Contemporary religious and anti-religious thinkers, with emphasis on those whose writings have significantly influenced modern thinking about human beings, God, society, history, and ethics.

R344 Reformations of the Sixteenth Century (3 cr.) This course introduces students to the religious reformations of sixteenth-century Europe. It examines the historical background to the Reformation and surveys a number of reformation movements. While intellectual history is emphasized, the ideas of religious thinkers are placed in broad historical, cultural, social, and economic contexts.

R346 Religious Women in the United States (3 cr.) The study of women's roles in several different religions. Focus on women's religious roles in the U.S. today, women's efforts to interpret and revise their religions, and ideas about women that characterize

various religious traditions. Involves oral history interviewing as well as a formal regimen of scholarly study.

R352 Religion and Literature in Asia (3 cr.) The treatment of religious issues in Asian literature (Hinduism in the Epics) or the significance of the literary forms of religious texts (the genre of recorded sayings), showing how the interplay of religious realities and literary forms reveals the dynamics of religious development in India, China, or Japan.

R361 Hinduism and Buddhism (3 cr.)

Examination of the origins and cultural developments of classical Hinduism and Buddhism through studies of selected lives and writings, religious practices, and symbolism in the arts through explorations of these two worldviews as reflected in historical, literary, and ritual forms.

R366 Religion and Civil Society (3 cr.) An examination of religion as a social institution that operates in civil society—that public space where people come together to promote mutual interests, voice common concerns, and even protest against ruling authorities. The focus is on the operation of, and the problems arising from, religion and civil society in different cultural settings, notably the United States and Middle East.

R383 Religions, Ethics, U.S. Society (3 cr.) The foundations for and applications of religious ethical positions on social justice issues in education, economics, family life, government, and politics.

R384 Religions, Ethics, and Health (3 cr.) The positions of religious ethical traditions on issues such as the control of reproduction, experimentation with human subjects, care of the dying, delivery of health care, physical and social environments, and heredity. May be repeated once for credit under different focus.

R393 Comparative Religious Ethics (3 cr.)

Comparisons of key figures, issues, and themes in the social-ethical systems of the world religions. To include intracultural studies of American Jewish and Christian positions on social questions and cross-cultural studies of similar positions in Asian and Western traditions.

***R400 Studies in Religion (3 cr.)** Specialized and intensive studies in religion with an interdisciplinary emphasis. May be repeated twice under different titles.

R433 Senior Capstone Tutorial (3 cr.)

An integrative and summative course of study in which majors, in cooperation with a faculty member, shall develop a hypothesis about the interaction of several dimensions of religion and about the ways in which they both mirror and shape social and cultural forms.

R590 Directed Readings in Religious Studies (3 cr.)

Sociology

Chair Associate Professor David A. Ford

Professors Carol B. Gardner, Linda Haas, John T. Liell (Emeritus), Suzanne K. Steinmetz, Robert J. White, Colin Williams

Associate Professors Robert Aponte, David Ford, William Gronfein, Ain Haas, Jay Howard, David Moller, Peter Seybold, Patricia Wittberg, Eric Wright

Assistant Professor Wan-Ning Bao

Adjunct Professor J. Herman Blake

Adjunct Associate Professors Wolfgang Bielefeld, Betsy Fife, Timothy Owens, Gail Whitchurch

Lecturer James Hunter

Academic Advising: Cavanaugh Hall 303, (317) 274-8981

The Department of Sociology has a two-fold mission: (1) to provide courses in sociology to all segments of the university, thereby acquainting the general student with the unique perspective and uses of sociology; and (2) to prepare sociology majors for advanced study or careers in sociology or related fields.

Sociology courses are designed to take advantage of the unique resources of an urban campus. The curriculum emphasizes the applied aspects of sociology as well as those segments of sociology necessary for advanced study. Courses in sociology serve to broaden the understanding of all students and should be of particular interest to students preparing for careers in professional social science, education, government, law, criminal justice, urban affairs, social service, medical service fields, and business. In an ever-changing environment, the Department of Sociology strives to provide students with diverse educational experiences, including traditional education and fieldwork and/or survey research experience. Undergraduate majors are encouraged to participate in internships and research projects as part of their educational experience.

Major in Sociology

Requirements

The major requires 33 credit hours of sociology course work (12 of which must be completed at IUPUI), with a grade of C (2.0) or better:

R100 Introduction to Sociology (3 cr.)
R351 Social Science Research Methods (3 cr.)
R356 Foundations of Social Theory (3 cr.)
R357 Contemporary Sociological Theory (3 cr.)
R359 Introduction to Sociological Statistics (3 cr.)

Capstone course selected from one of the following:

R494 Internship Program in Sociology (3 cr.)
R497 Individual Readings in Sociology (3 cr.)
R493 Practicum in Sociological Fieldwork (3 cr.)
R490 Survey Research Methods (3 cr.)
R481 Evaluation Research Methods (3 cr.)

15 additional credit hours of other sociology courses

Minor in Sociology

A general minor in sociology will allow students in a variety of fields to expand their liberal arts education within an area that complements their general major or program of professional training.

Requirements

The minor requires 15 credit hours of course work (6 of which must be completed at IUPUI), with a grade of C (2.0) or better:

R100 Introduction to Sociology (3 cr.)

R351 Social Science Research Methods *or*

R356 Foundations of Social Theory *or*

R357 Contemporary Social Theory (3 cr.)

9 additional credit hours of sociology courses will be required, with 6 of those credit hours at the 200-400 level.

Minor in Medical Sociology

Considering the unique resources and needs of IUPUI, the Department of Sociology offers a minor in medical sociology. This program is designed to lead to a general understanding of the social context of health, health care, and the delivery of medical services and should be of special interest to all students majoring in health-related specialties.

Requirements

The minor requires 15 credit hours of course work (6 of which must be completed at IUPUI), with a grade of C (2.0) or better:

R100 Introduction to Sociology (3 cr.)

R381 Social Factors in Health and Illness (3 cr.)

R382 Social Organization of Health Care (3 cr.)

6 additional credit hours of sociology courses selected from the following:

R285 AIDS and Society, R320 Sexuality and Society, R321 Women and Health, R327 Sociology of Death and Dying, R415 Sociology of Disability, R485 Sociology of Mental Illness

Master of Arts Degree

The Master of Arts program is specifically designed to prepare its students for non-academic careers conducting applied and policy-oriented research, and to equip those already in the workforce with the critical skills necessary for assessing and applying sociological knowledge in their everyday responsibilities. Currently, the program features two formal areas of concentration—family studies and medical sociology.

Admission Requirements

Applicants must have a baccalaureate degree from an accredited U.S. institution, or a certifiable foreign equivalent, with a grade point average of 3.0 (on a scale of 4.0). Applicants should have completed five undergraduate sociology courses (or approved equivalents, with no more than two of the latter). They must have received Graduate Record Exam (GRE) scores at or above the 50th percentile. In addition, two samples of writing (a 500-word essay required by the IU Graduate School and a sole-authored report or term paper required by the sociology department) must accompany the application forms. Foreign applicants are required to score at least 550 on the Test of English as a Foreign Language (TOEFL). Students not meeting these requirements may be admitted on probation, or they may be required to enroll in courses as a graduate non-degree student to complete the prerequisites.

Degree Requirements

36 credit hours, distributed as follows:

12-credit core

R551 Sociological Research Methods (3 cr.)

R556 Advanced Sociological Theory I: The Classical Tradition (3 cr.) or R557 Advanced Sociological Theory II: The Modern Tradition (3 cr.)

R559 Sociological Statistics (3 cr.)

R593 Applied Fieldwork for Sociologists (3 cr.)

12 credits in an area of concentration (family studies, medical sociology, or other approved topic in applied sociology)

9 credits of electives

3 credit thesis

Grades

In order to earn the M.A. in Sociology, students must maintain a minimum GPA of 3.0 on a 4.0 scale. Grades in courses counting for credit toward this degree may be no lower than C (2.0 on a 4.0 scale).

Course Load

The normal course load for full-time students is 3 courses (9 credit hours) each semester. For part-time students it is 1-2 courses (3-6 cr.) each semester. Course loads may vary for students with assistantships and fellowships.

Transfer Credits

The Graduate School limits transfers from other institutions to 8 credits with a grade of B or above and will not accept correspondence courses. Graduate work with a grade of B or higher obtained from other IU locations may be applied toward an M.A. in Sociology. Requests for transfer credit from other graduate institutions will be evaluated for acceptance by the graduate committee after a student has been admitted into and completed 6 credits in the IUPUI sociology M.A. program. The department requires the last 18 credits be completed in its program.

Time Limit

Students must complete all requirements for the M.A. degree within five years.

Financial Aid

Stipends of various amounts for teaching and research assistantships are available. Please contact the Department of Sociology for more information.

Undergraduate Courses

R100 Introduction to Sociology (3 cr.) P: W131 or consent of the instructor. Consideration of basic sociological concepts, including some of the substantive concerns and findings of sociology, sources of data, and the nature of the sociological perspective.

R121 Social Problems (3 cr.) P: R100 or consent of the instructor. Selected current "problems" of American society are analyzed through the use of basic sociological data and the application of major sociological frameworks. Policy implications are discussed in light of value choices involved in various solutions.

R220 The Family (3 cr.) P: R100 or consent of the instructor. The family as a major social institution and how it relates to the wider society. Formation of

families through courtship, marriage, and sexual behavior; maintenance of families through childrearing and family interaction; and dissolution of families by divorce or death. Social change and the emergence of new familial patterns.

R234 Social Psychology (3 cr.) P: R100 or consent of the instructor. Sociological approach to human character, with emphasis on the psychology of the individual in social situations. Topics include socialization and the self, language and communication, interpersonal relations, attitude formation, conformity and social influence, and group processes.

R239 Alienation and Anxiety in Modern Society (3 cr.) P: R100 or consent of the instructor. A review of alienation as a concept of social criticism. Using classical thinking and contemporary literature, this course evaluates the sociological tradition that argues modern humans are alienated and desperate.

R240 Deviance and Social Control (3 cr.) P: R100 or consent of the instructor. An introduction to major sociological theories of deviance and social control, analyzes empirical work done in such areas as drug use, unconventional sexual behavior, family violence, and mental illness. Explores both "lay" and official responses to deviance, as well as cultural variability in responses to deviance.

R285 AIDS and Society (3 cr.) P: R100 or consent of the instructor. This course examines the HIV/AIDS epidemic from a sociological perspective. Students will explore how social factors have shaped the course of the epidemic and the experience of HIV disease. The impact of the epidemic on health care, government, and other social institutions will also be discussed.

R295 Topics in Sociology (3 cr.) P: R100 or consent of the instructor. Exploration of a topic in sociology not covered by the regular curriculum but of interest to faculty and students in a particular semester. Topics to be announced.

R305 Population (3 cr.) P: R100 or consent of the instructor. Focus on study of people in terms of relative numbers, geographic distribution, and factors influencing change. Included are considerations of population theory, values related to population questions, an overview of basic techniques of analysis, and mortality, fertility, migration, and growth trends.

R312 Sociology of Religion (3 cr.) P: R100 or consent of the instructor. Examination of religion from the sociological perspective. Religious institutions, the dimensions of religious behavior, the measurement of religious behavior, and the relationship of religion to other institutions in society are examined.

R315 Sociology of Power (3 cr.) P: R100 or consent of the instructor. Analysis of the nature and basis of political power on the macro level—the community, the national, and the international arenas. Study of formal and informal power structures and of the institutionalized and noninstitutionalized mechanisms of access to power.

R316 Society and Public Opinion (3 cr.) P: R100 or consent of the instructor. Analysis of the

formulation and operation of public opinion. Although the course may focus on all aspects of opinion and behavior (including marketing research, advertising, etc.), most semesters the course focuses on political opinion and behavior. Special attention will be given to two aspects of opinion in our society: its measurement through public opinion polls and the role of mass communication in manipulating public opinion. The distortions in the popular press's reports of the results of survey research are considered in depth.

R317 Sociology of Work (3 cr.) P: R100 or consent of the instructor. Analysis of the meaning of work, the dynamic social processes within work organizations, and environmental constraints on organizational behavior.

R320 Sexuality and Society (3 cr.) P: R100 or consent of the instructor. Provides a basic conceptual scheme for dealing with human sexuality in a sociological manner.

R321 Women and Health (3 cr.) P: R100 or consent of the instructor. A review of the relationships among cultural values, social structure, disease, and wellness, with special attention focused on the impact of gender role on symptomatology and access to health care. Selected contemporary health problem areas will be examined in depth. Alternative models of health care delivery will be identified and discussed.

R325 Gender and Society (3 cr.) P: R100 or consent of the instructor. A sociological examination of the roles of women and men in society, analysis of the determinants and consequences of these roles, and assessment of forces likely to bring about future change in these roles. Although focus will be on contemporary American society, cross-cultural variations in gender roles will also be noted.

R327 Sociology of Death and Dying (3 cr.) P: R100 or the consent of the instructor. This course examines inevitable and salient features of the human condition. Historical evaluation of images and attitudes toward death, the medicalization of death, the human consequences of high-tech dying, the role of the family in caring for dying loved ones, the emergence and role of hospices, the social roles of funerals, grief and bereavement, euthanasia and suicide, the worlds of dying children and grieving parents, and genocide are major issues that are addressed. Two of the major themes of the course revolve around the idea that the way we die is a reflection of the way we live; and, that the study of dying and death is an important way of studying and affirming the value of life.

R329 Urban Sociology (3 cr.) P: R100 or consent of the instructor. The social dynamics of urbanization, urban social structure, and urban ecology. Theories of urban development; the city as a form of social organization; macroprocesses of urbanization both in the U.S. and other countries.

R330 Community (3 cr.) P: R100 or consent of the instructor. Social, psychological, and structural features of community life. Topics include microphenomena such as the neighborhood, networks of friendship and oppositions, social participation, community power structure, and institutional framework.

R335 Sociological Perspectives on the Life Course (3 cr.) P: R100 or consent of the instructor. Focuses on the human life course as a product of social structure, culture, and history. Attention is given to life course contexts, transitions, and trajectories from youth to old age; work, family, and school influences; self-concept development, occupational attainment, and role acquisition over the life course.

R338 Comparative Social Systems (3 cr.) P: R100 or consent of the instructor. History and general theories of comparative sociology. Major focus on comparative analyses of social structure, kinship, policy and bureaucracy, economics and stratification, and institutionalized belief systems. Some attention is given to culture and personality and to cross-cultural methodology.

R344 Juvenile Delinquency and Society (3 cr.) P: R100 or consent of the instructor. Legal definition of delinquency, measurement and distribution of delinquency. Causal theories considered for empirical adequacy and policy implications. Procedures for processing juvenile offenders by police, courts, and prisons are examined.

R345 Crime and Society (3 cr.) P: R100 or consent of the instructor. Examination of the creation, selection, and disposition of persons labeled criminal. Emphasis on crime as an expression of group conflict and interest. Critique of academic and popular theories of crime and punishment.

R346 Control of Crime (3 cr.) P: R100 or consent of the instructor. History, objectives, and operation of the crime control system in relation to its sociopolitical context. Critical examination of philosophies of punishment and programs of rehabilitation.

R349 Practicum in Victimology (3 cr.) P: R100 or consent of the instructor. The role of the victim in the criminal justice system is examined through both course work and practical experience as a volunteer with the Marion County Prosecutor's Witness-Victim Assistance Program. Recommended for students with interest in deviance, criminology, law, criminal justice, and social service.

R351 Social Science Research Methods (3 cr.) P: R100 or consent of the instructor and sophomore standing. A survey of methods and techniques used by sociologists and other social scientists for gathering and interpreting information about human social behavior.

R356 Foundations of Social Theory (3 cr.) P: R100 or consent of the instructor. Examination of the fundamental issues and perspectives in classical theories. Special focus will be on analysis of the major nineteenth-century theories that influenced later sociological thought.

R357 Contemporary Sociological Theory (3 cr.) P: R100, R356, or consent of the instructor. Emphasis on theoretical developments of the twentieth century and the relationships of current theories to classical theories.

R359 Introduction to Sociological Statistics (3 cr.) P: R100, R351, or consent of the instructor. Measures of central tendency, dispersion,

standardizing and normalizing procedures, and simple index numbers. Simple notions of probability as related to statistical inference (means, proportions, binomial distribution, chi-square, simple regression).

R381 Social Factors in Health and Illness (3 cr.) P: R100 or consent of the instructor. Examines the social aspects of health and illness, including variations in the social meanings of health and illness, the social epidemiology of disease, and the social dimensions of the illness experience.

R382 Social Organization of Health Care (3 cr.) P: R100 or consent of the instructor. Surveys the nature of and recent changes in the health care delivery system in the United States. Patient and professional roles and the characteristics of different health care settings are explored. Current debates about the nature of the professions and professional work are emphasized.

R410 Alcohol and Society (3 cr.) P: R100 or consent of the instructor. This is a survey of the use and abuse of alcohol, including extent of use, history of use and abuse, "biology" of alcohol, alcoholism as a problem, legal actions, and treatment strategies.

R415 Sociology of Disability (3 cr.) P: R100 or consent of the instructor. An examination of current models of disability and of disability at the interpersonal and societal level. Topics include recent legal, social, and educational changes; the ways in which people with disabilities interact with the nondisabled; the role played by relatives and caregivers; and the image of people with disabilities in film, television, and other media. Recommended for students in nursing, education, physical and occupational therapy, and social work, as well as for the medical sociology minor. Available for graduate credit.

R420 Sociology of Education (3 cr.) P: R100 or consent of the instructor. A survey of sociological approaches to the study of education, covering such major topics as (a) education as a social institution, (b) the school of society, (c) the school as a social system, and (d) the sociology of learning.

R425 Gender and Work (3 cr.) P: R100 or consent of the instructor. This course examines the changing world of women's paid and unpaid work, primarily in the United States. The impact of race and social class on women's work will be covered, as will women's experiences as activists for social change.

R430 Families and Social Policy (3 cr.) P: R100 and R220 or consent of the instructor. This seminar explores how the state and labor market currently affect family structure and the quality of family life in the U.S. and the role the state and labor market could play in the future. Family policies in other parts of the world will be considered for possible applicability to the U.S.

R461 Race and Ethnic Relations (3 cr.) P: R100 or consent of the instructor. Comparative study of racial, ethnic, and religious relations. Focus on patterns of inclusion and exclusion of minority groups by majority groups. Discussion of theories of intergroup tensions—prejudice and discrimination—and of corresponding approaches to the reduction of tensions.

R463 Inequality and Society (3 cr.) P: R100 or consent of the instructor. Presentation of conservative and radical theories of class formation, consciousness, mobility, and class consequences. Relevance of social class to social structure and personality. Emphasis on the American class system, with some attention given to class systems in other societies.

R467 Social Change (3 cr.) P: R100 or consent of the instructor. Basic concepts, models, and individual theories of social change; historical and contemporary analysis of the structural and psychological ramifications of major social trends.

R476 Social Movements (3 cr.) P: R100 or consent of the instructor. Study of the origins and dynamics of contemporary social movements in American society, with some attention to cross-national movements. Coverage of progressive and regressive movements aimed at changing the social, economic, and political structure of the society. Case studies of expressive and ideological movements, including fads, cults, and revolts and revolutions.

R478 Formal Organizations (3 cr.) P: R100 or consent of the instructor. Sociological inquiry into the nature, origin, and functions of bureaucratic organizations. Emphasis on bureaucratic organizations as the predominant mode of contemporary task performance and on their social-psychological consequences. Theoretical and empirical considerations in organizational studies from Weber to contemporary findings.

R480 Sociology and Social Policy (3 cr.) P: R100 or consent of the instructor. This course is a broad review of the increasing use of sociology in the formulation and implementation of social policy. Specific case studies will be examined. Recommended for students with an interest in medicine, law, education, social service, urban affairs, etc.

R481 Evaluation Research Methods (3 cr.) P: R100, R351, R359, or consent of the instructor. A comprehensive study of research techniques and practical applications in the area of the evaluation of social programs. Recommended for students with an interest in social research concerning medicine, law, education, social service, urban affairs, etc.

R485 Sociology of Mental Illness (3 cr.) P: R100 or consent of the instructor. A survey of current problems in psychiatric diagnosis, the social epidemiology of mental illness, institutional and informal caregiving, family burden, homelessness, and the development and impact of current mental health policy. Cross-cultural and historical materials, derived from the work of anthropologists and historians, are used throughout the course.

R490 Survey Research Methods (3 cr.) P: R100, R351, R359, or consent of the instructor. In this practicum, students will design and conduct a survey, learn how to code survey results, enter data, and analyze data with the mainframe computer. A report will also be written. The advantages and disadvantages of survey methodology will be highlighted and ethical issues will be discussed.

R493 Practicum in Sociological Fieldwork (3 cr.) P: R100 and R351, senior standing or consent

of the instructor. Role of systematic observation as a sociological method. Training in fieldwork techniques and the application of sociological concepts to actual social situations. The core of this course will involve a supervised fieldwork research project in some area of social life.

R494 Internship Program in Sociology (3-6 cr.)

P: R100, 9 cr. of sociology with a C (2.0) or better, junior standing with consent of the instructor. This course involves students working in organizations where they apply or gain practical insight into sociological concepts, theories, and knowledge. Students analyze their experiences through work logs, a paper, and regular meetings with the internship director.

R495 Topics in Sociology (3 cr.) P: Variable with topic. Exploration of a topic in sociology not covered by the regular curriculum but of interest to faculty and students in a particular semester. Topics to be announced.

R497 Individual Readings in Sociology (3 cr.)

P: consent of instructor and 9 credit hours of sociology courses with at least a C grade. Investigation of a topic not covered in the regular curriculum that is of special interest to the student and that the student wishes to pursue in greater detail. Normally available only to majors through arrangement with a faculty member.

Graduate Courses

S500 Proseminar in Sociology (1 cr.) P: graduate standing and/or consent of the instructor.

Introduction to current sociological research interests and concerns through the work of departmental members.

R515 Sociology of Health and Illness (3 cr.)

Surveys important areas of medical sociology, focusing on social factors influencing the distribution of disease, help-seeking, and health care. Topics covered include social epidemiology, the health-care professions, socialization of providers, and issues of cost and cost containment.

R525 Gender and Work (3 cr.) P: graduate standing and 6 credit hours of sociology, or consent of the instructor. This course explores the historical and contemporary trends in women's paid and unpaid work, and the causes and consequences of sex segregation in the labor force and in the home. An emphasis will be placed on understanding and critically analyzing contemporary theory and research on the subject.

S526 The Sociology of Human Sexuality (3 cr.)

P: graduate standing and consent of the instructor. This is a one-semester graduate-level course on the sociology of human sexuality. This course will provide (a) a detailed examination of the development of sex research, (b) a sociological perspective on and critique of this corpus, and (c) an opportunity for students to develop research of their own.

R530 Families and Social Policy (3 cr.) P: R100, R220, graduate standing. This seminar will explore how the government and labor market affect family structure and the quality of family life. Students will study the implications of family research for social

policy and learn to develop theoretical frameworks for evaluating social policies affecting families.

S530 Introduction to Social Psychology (3 cr.)

P: graduate standing or consent of the instructor. Examines the broad range of work in social psychology. Emphasis is placed on the relation between the classic and contemporary literature in the field.

R551 Sociological Research Methods (3 cr.) P: graduate standing or consent of the instructor. This course surveys the major techniques for investigating current sociological problems. It emphasizes the relationship between theory and practice in understanding and conducting research. Although methods intended for rigorous hypothesis-testing through quantitative analysis will be of major concern, the course will also examine issues in field research essential to a full understanding of a research problem.

R556 Advanced Sociological Theory I: The

Classical Tradition (3 cr.) P: graduate standing or consent of the instructor. This is the first part of a two-semester graduate course in contemporary sociological theory and theory construction. The first semester will involve the student in detailed study and analysis of sociologists belonging to the positivist tradition in sociology. Students will be expected to comprehend contemporary sociology in terms of its historical roots and to demonstrate their understanding of theory construction.

R557 Advanced Sociological Theory II: The

Modern Tradition (3 cr.) P: graduate standing or consent of the instructor. Reading and exercises will involve the student in close analysis and criticism of sociologists belonging to the idealist tradition of sociology. In this second part of a two-semester course in theory and theory construction in sociology, students will be required to demonstrate their mastery of the theorists studied, as well as to demonstrate their own abilities in theory design and construction.

R559 Intermediate Sociological Statistics

(3 cr.) P: R359 or equivalent, graduate standing or consent of the instructor. Basic techniques for summarizing distributions, measuring interrelationships, controlling extraneous influences, and testing hypotheses are reviewed, as students become familiar with the computer system. Complex analytical techniques commonly applied in professional literature are examined in detail, including analysis of variance, path diagrams, factor analysis, and log-linear models.

S560 Graduate Topics (3 cr.) P: graduate standing or consent of the instructor, variable with topic.

Exploration of a topic in sociology not covered by the regular curriculum but of interest to faculty and students in a particular semester. Topics to be announced.

R585 Social Aspects of Mental Health and

Mental Illness (3 cr.) P: graduate standing or consent of the instructor. This is a graduate-level course on the sociology of mental illness and mental health. Provides a thorough grounding in the research issues and traditions that have characterized scholarly inquiry into mental illness in the past. Students will

become familiar with public policy as it has had an impact on the treatment of mental illness and on the mentally ill themselves.

R593 Applied Fieldwork for Sociologists (3 cr.)

P: graduate standing or consent of the instructor. This course will provide students with both a theoretical and methodological background in the different types of qualitative analysis used in sociological fieldwork. Students will have the opportunity to study and to evaluate representative examples of qualitative studies and to complete by themselves a project done with qualitative methods.

R610 Sociology of Health and Illness Behavior

(3 cr.) P: graduate standing or consent of the instructor. This seminar explores sociological and social scientific research on health and illness behavior. Special emphasis is placed on examining how social factors and conditions shape people's responses to disease, illness, and disability.

S610 Urban Sociology (3 cr.) P: graduate standing

or consent of the instructor. Historical and contemporary causes, trends, and patterns of urbanization throughout the world. Various approaches to studying the process of urbanization, including ecological, social organizational, and political perspectives. Current developments and problems in urban planning.

S612 Political Sociology (3 cr.) P: graduate standing or consent of the instructor. An analysis of the nature and operation of power in a political system. Topics may include classical theories of power, political behavior and campaigns, the role of mass media in sustaining power, the state as a social institution, and political movements.

S613 Complex Organizations (3 cr.) P: graduate

standing or consent of the instructor. Theory and research in formal organizations: industry, school, church, hospital, government, military, and university. Problems of bureaucracy and decision-making in large-scale organizations. For students in the social sciences and professional schools interested in the comparative approach to problems of organization and their management.

S616 Sociology of Family Systems (3 cr.) P:

graduate standing or consent of the instructor. Focus on the nature, structure, functions, and changes of family systems in modern and emerging societies, in comparative and historical perspective. Attention is given to relationships with other societal subsystems, and to interaction between role occupants within and between subsystems.

S632 Socialization (3 cr.) P: graduate standing or

consent of the instructor. The processes of development of the individual as a social being and societal member, focusing on childhood or socialization into adult roles.

R697 Individual Readings in Sociology (3 cr.)

P: graduate standing and consent of the instructor. Investigation of a topic not covered in the regular curriculum that is of special interest to the student and that the student wishes to pursue in greater detail. Available only to sociology graduate students through arrangement with a faculty member.

Spanish

See "Foreign Languages and Cultures."

Urban Studies

Coordinator Professor David Bodenhamer, *History*

Professors David Bodenhamer, *History*; Robert Kirk, *Economics*; Miriam Langsam, *History*; Susan Sutton, *Anthropology*

Associate Professors Ain Haas, *Sociology*; Monroe Little, *History*

Minor in Urban Studies

The minor in urban studies offers students an opportunity to develop a well-rounded and basic understanding of the components of urban life and of the forces that are shaping its future. Further, it provides students with a basic knowledge and understanding of the major factors that not only have contributed to the present but will also affect the future of the physical, internal, and social structure of our cities and metropolitan areas.

To achieve this goal, the minor in urban studies must be interdisciplinary in nature. In such a program, the student approaches the complexity of urban life from the perspective of economics, geography, history, political science, sociology, anthropology, and general urban and regional planning analysis.

To complete the minor, the student must successfully complete 15 credit hours in School of Liberal Arts urban studies courses. The student may count any combination of approved urban studies courses toward the minor as long as no more than two courses are in the same department. The following courses are acceptable as urban studies courses.

Anthropology E380 Urban Anthropology (3 cr.)

Economics E323 Urban Economics (3 cr.)

Geography G318 Geography of Cities and Metropolitan Areas (3 cr.)

Geography G319 Internal Structure of the City (3 cr.)

History A347 American Urban History (3 cr.)

Political Science Y308 Urban Politics (3 cr.)

Sociology R329 Urban Sociology (3 cr.)

Sociology R330 Community (3 cr.)

Women's Studies

Director Professor Obioma Nnaemeka

Associate Director Professor Richard Turner

Distinguished Professor Angela McBride, *Nursing*

Professors Gabrielle Bersier, *German*; Barbara Cambridge, *English*; Ulla Connor, *English*; Eleanor Donnelly, *Nursing*; Carol Gardner, *Sociology*; Linda Haas, *Sociology*; Missy Dehn Kubitschek, *English*; Miriam Langsam, *History*; Suzanne Steinmetz, *Sociology*; Phyllis Stern, *Nursing*; Susan Sutton, *Anthropology*; Rosalie Vermette, *French*

Associate Professors Dennis Bingham, *English*; Paul Carlin, *Economics*; Catherine Dobris, *Communication Studies*; Susanmarie Harrington, *English*; Barbara Jackson, *Anthropology*; Karen Johnson, *English*; Elizabeth Jones, *Physical Education*; Florence Juillerat, *Biology*; Nancy Newton, *Spanish*; Ursula Niklas, *Philosophy*; Obioma Nnaemeka, *French*; Michael Parsons, *Education*; Susan Shepherd, *English*; Catherine Souch, *Geography*; Robert Sutton, *Classical Studies*; Rebecca Van Voorhis, *Social Work*; Marianne Wokeck, *History*

Assistant Professors Haya Ascher-Svanum, *Psychiatry*; Peg Brand, *Philosophy*; Stephanie Dickey, *Herron*; Jean Robertson, *Herron*; Nancy Robertson, *History*

Associate Librarian Martha McCormick

The Women's Studies Program at IUPUI provides undergraduate students the opportunity to pursue a sequence of courses in a growing academic discipline—the study of women and their changing role in society. The program is interdisciplinary because women's experiences encompass the full range of human activity and separate disciplines offer unique starting points in interpreting these experiences.

The importance of women's studies lies both in its interdisciplinary approach and in the timely opportunity it offers for the study of issues long neglected by scholarship.

Minor in Women's Studies

Completion of a women's studies minor may provide an additional basis for pursuing future training in law, psychology, history, literature, or public or business administration. For students who do not continue professional or graduate training in an academic discipline, a women's studies minor may provide a useful background in careers paying increasing attention to concerns of women, such as paralegal and probation work, secondary and elementary school counseling, journalism, and community agency service.

Requirements

The minor in women's studies requires 16 credit hours as follows:

1. W105 Introduction to Women's Studies (3 cr.)
2. At least 6 credit hours in women's studies courses (including cross-listed offerings) in the social sciences
3. At least 6 credit hours in women's studies courses (including cross-listed offerings) in the humanities

4. Up to 6 credit hours in women's studies courses approved by the director
5. W499 Colloquium in Women's Studies (1 cr.)
6. At least 6 credit hours of course work must be at the 400 level.

Courses

W105 Introduction to Women's Studies (3 cr.)

This introductory course examines both the relation of women's studies to other disciplines and the multiple ways in which gender experience is understood and currently studied. Beginning with a focus on how inequalities between women and men, as well as among women, have been explained and critiqued, the course considers the impact of social structure and culture on gender. The intersections of gender, race, class, sexual orientation, and age are investigated in both national and international contexts.

W300 Topics in Women's Studies: (variable title) (1-3 cr.) An interdisciplinary study of selected themes, issues, and methodologies in women's studies. May be repeated for up to 6 credit hours.

W480 Women's Studies Practicum (3-6 cr.) P: W105 and consent of instructor and program director. Internships in the Women's Studies Program are offered to provide opportunities for students to gain work experience while serving women's needs. This experience is combined with an academic analysis of women's status and experience in organizations.

W495 Readings and Research in Women's Studies (1-3 cr., 6 cr. max.) P: W105 and consent of instructor and program director. Individual readings and research. May be repeated twice for credit with a different topic.

W499 Senior Colloquium in Women's Studies (1 cr.) P: permission of instructor. This is a culminating interdisciplinary course for advanced students who are prepared to present the results of an original major research effort on a topic in women's studies. Participants will be expected to read and evaluate the presentations of other students and participating faculty.

W500 Feminist Theory (3 cr.) An examination of contemporary feminist analyses of gender relations, how they are constituted and experienced and how social structures maintaining sexist hierarchies intersect with hierarchies of race, class, and ethnicity. Rival theories are applied to particular issues to demonstrate connections between theory and practice.

W601 Survey of Contemporary Research in Women's Studies: The Social and Behavioral Sciences (3 cr.) An exploration of feminist perspectives in the social sciences. Theoretical frameworks and research styles used by feminist social scientists are examined, as are feminist critiques of traditional social scientific frameworks and research methods. Research reports by feminist researchers in social scientific disciplines are also read and analyzed.

W602 Contemporary Research in Women's Studies: The Humanities (3 cr.) Review of literature on sex roles, psychology of women,

socialization and politicization of women. Training in methodology of research on women; critique of prevailing and feminist theoretical frameworks for studying women.

W695 Graduate Readings and Research in Women's Studies (3-6 cr.) An opportunity for graduate students in various programs at IUPUI to explore specific issues within the field of women's studies, guided by faculty with particular expertise in these areas. The course is used to do readings and research that go beyond what is covered in other women's studies graduate courses offered on this campus. It also involves faculty not normally involved in the teaching of these other courses but who have skills and knowledge relevant to the issues being investigated.

W701 Graduate Topics in Women's Studies (3-4 cr.) Advanced investigation of selected research topics in women's studies. Topics to be announced.

Cross-listed courses include:

ANTH E402 Gender in Cross-Cultural Perspective

BIOL N200 Biology of Women

CLAS C495 Gender and Sexuality in the Classical World

CMLT C390 Feminism and Film

COMM G391 Womenspeak: American Feminist Rhetoric

ECON E307 Economics of the Family

ECON E391 Women in Developing Countries

ENG L378 Studies in Women and Literature

ENG L207 Women in Literature

ENG L401 Language, Power, and Gender

ENG L406 Topic: Writings of Toni Morrison

ENG L573 Race and Gender in Contemporary American Fiction

GEOG G338 Gender and Geography

HIST H306 Sex Roles and Society in American History

HIST H409 Women in History

MUS M110 Women Musicians

NURS G553 Advanced Nursing of Women and Families

OLS 401 Women in Supervision

PHIL P282 Women in Philosophy

PHIL P394 Feminist Philosophy

POLS Y200 Women and Politics

PSY B376 Psychology of Women

REL R346 Religious Women in the United States

SOC R321 Women and Health

SOC R325 Gender and Society

SOC R425 Gender and Work

SPAN S470 Hispanic Women Writers

Administration

HERMAN J. SAATKAMP JR., Ph.D., *Dean*

ROBERT W. WHITE, Ph.D., *Associate Dean for Academic Affairs*

WILLIAM H. SCHNEIDER, Ph.D., *Associate Dean for Research and Graduate Programs*

MIRIAM Z. LANGSAM, Ph.D., *Associate Dean for Student Affairs*

DON W. SCHULTHEIS, C.P.A., *Assistant Dean and Business Officer*

GAIL PLATER, M.A., *Assistant to the Dean for External Affairs*

AMY A. JONES, B.A., *Assistant to the Dean for Student Affairs*

MICHAEL SCOTT, M.S., *Director of Liberal Arts Technical Services*

HELEN A. HENARD, M.S., *Undergraduate Counselor*

Chairs

Anthropology—Richard Ward, Ph.D.

Communication Studies—John Parrish-Sprowl, Ph.D.

Economics—Robert Sandy, Ph.D.

English—Christian Kloesel, Ph.D.

Foreign Languages and Cultures—Larbi Oukada, Ph.D.

Geography—Catherine J. Souch, Ph.D.

History—Philip Scarpino, Ph.D.

Philosophy—Michael Burke, Ph.D.

Political Science—William Blomquist, Ph.D.

Religious Studies—Rowland Sherrill, Ph.D.

Sociology—David A. Ford, Ph.D.

Centers and Projects

Center for American Studies—Rowland Sherrill

Center on Philanthropy—Eugene Tempel

Center for the Study of Religion and American Culture—Philip Goff

Indiana Center On Inter-cultural Communications—Ulla Connor

Max Kade Center for German-American Studies—Giles Hoyt

POLIS Center—David Bodenhammer

Public Opinion Laboratory—Brian Vargus

Editorial Projects

Frederick Douglass Papers—John McKivigan

Peirce Edition Project—Nathan Houser

Santayana Edition Project—Herman Saatkamp

Education Councils with Statewide or Nationwide Missions

Geography Educators Network of Indiana—Kathleen Kozenski

Indiana Council on Economic Education—Robert Harris

National Council on Public History—David Vanderstel

Spanish Resource Center—Milagros Sanchez deLablanca

Academic Programs

Afro-American Studies Program—*Monroe Little*
American Sign Language—*Cynthia Roy*
Classical Studies—*Robert Sutton*
English as a Second Language—*Thomas Upton*
Health Studies and Medical Humanities—*William Schneider*
International Studies—*John McCormick*
Legal Studies—*William Blomquist*
Museum Studies—*Elizabeth Kryder-Reid*
Philanthropic Studies—*Dwight Burlingame*
Urban Studies—*William Blomquist*
Women's Studies Program—*Obioma Nnaemaekwa*

Distinguished Faculty Awards

This award is presented to faculty in recognition of excellence in teaching, research, and service. Recipients are selected annually by a committee of the Faculty Assembly of the School of Liberal Arts.

Resident Faculty Award

2000-01 Richard E. Ward
 1999-00 David W. Moller
 1998-99 John J. Tilley
 1997-98 Robert F. Sutton
 1996-97 Michael B. Burke
 1995-96 Catherine J. Souch
 1994-95 William A. Blomquist
 1993-94 Richard S. Steinberg
 1992-93 Scott Seregny
 1991-92 Larbi Oukada
 1990-91 Rowland A. Sherrill
 1989-90 Linda Haas
 1988-89 Michael Balmert
 1987-88 Edmund Byrne
 1986-87 David G. Burns
 1985-86 No award
 1984-85 Jan Shipps
 1983-84 Rufus Reiberg
 1982-83 Warren G. French
 1981-82 Frederick L. Bein
 1980-81 Richard C. Turner
 1979-80 Patrick J. McGeever
 1978-79 John D. Barlow and Miriam Z. Langsam
 1977-78 Ralph D. Gray
 1976-77 Laurence Lampert
 1975-76 Joseph R. Keller
 1974-75 Bernard Friedman

Associate Faculty Award

2000-01 James E. Powell
 1999-00 Michael R. Hughes
 1998-99 Sarah V. Hale
 1997-98 Margaret Daniel
 1996-97 Mel Winninger
 1995-96 William E. Taylor
 1994-95 Jennifer Cochrane and Robert Kasberg
 1993-94 Joseph C. Farab
 1992-93 Nancy Eddy
 1991-92 Ellen Brennan
 1990-91 No award
 1989-90 Elizabeth Crozier
 1988-89 Marilyn Dapper
 1987-88 Pamela Moss
 1986-87 Michael S. Talbett
 1985-86 Robert L. Beck and Clara Heath
 1984-85 Joyce Hendrixson
 1983-84 Barbara Zimmer
 1982-83 Rebecca A. Fitterling

Faculty

Resident and Adjunct Faculty

Able, Stephen Lee, *Adjunct Assistant Professor of Economics* (1988); B.A., Schreiner Institute, 1973; Ph.D., Indiana University, 1979.

Albin, David, *Lecturer of English* (2001); B.A., College of Wooster, 1987; M.A., Purdue University, 1999.

Allen, Janet L., *Adjunct Assistant Professor of Communication Studies* (1997); B.S., Illinois State University, 1977.

Andersen, Ellen A., *Assistant Professor of Political Science* (1999); A.B., Cornell University, (1988); M.A., University of Michigan, Ann Arbor, 1994; Ph.D., 1999.

Antón, Marta M., *Associate Professor of Spanish* (1992); *Certification and Licenciatura, University of Oviedo (Spain)*, 1985; M.A., University of Massachusetts, 1992; Ph.D., 1994.

Aponte, Robert, *Associate Professor of Sociology* (1996); B.A., George Mason University, 1979; M.A., University of Chicago, 1983; Ph.D., 1991.

Ardemagni, Enrica, *Associate Professor of Spanish* (1987); B.A., University of Arkansas, 1973; M.A., 1977; Ph.D., University of Wisconsin, 1985.

Ascher-Svanum, Haya, *Adjunct Assistant Professor of Women's Studies* (1982); A.B., Tel-Aviv University, 1972; M.A., University of Minnesota, 1977; Ph.D., 1982.

Askari, Ammar, *Lecturer in Economics* (IUPUI Columbus) (1997); B.S., Damascus University, 1985; M.S., Wright State University—Dayton, Ohio, 1987; M.A., Indiana University, 1992; Ph.D., 1995.

Baker, Mary Anne, *Professor of Psychology* (Southeast) (1970), and *Adjunct Professor of Philanthropic Studies*; B.A., University of Louisville, 1964; M.A., 1969; Ph.D., 1971.

Bao, Wan-Ning, *Assistant Professor of Sociology* (1999); B.A. Hebei University, 1986; M.A., Iowa State University, 1993; Ph.D., 1997.

Barger, W. Kenneth, *Professor of Anthropology* (1977); B.A., Davidson College, 1963; M.A., University of North Carolina, 1970; Ph.D., 1974.

Barna, John, *Lecturer of English* (2001); B.A., Stetson University, 1993; M.F.A., Purdue University, 1997.

Barrows, Robert G., *Director of Graduate Studies, Associate Professor of History* (1989); B.A., Muskingum College, 1968; M.A., Indiana University, 1972; Ph.D., 1977.

Beck, David, *Lecturer of English* (2001); B.A., Indiana University, 1990; M.A., 2000.

Beck, Robert L., *Adjunct Assistant Professor of Geography* (1985); B.A., Hastings College, 1973; M.A., Indiana State University, 1976; Ph.D., 1982.

Beckstrand, Janis Kay, *Assistant Dean for Clinical Research, Associate Professor of Nursing, and Adjunct Associate Professor of Anthropology* (1985); B.S., University of Texas, 1971; M.S., University of Colorado, 1973; Ph.D., University of Texas, 1978.

Bein, Frederick L., *Professor of Geography* (1978); B.A., University of Colorado, 1969; M.A., University of Florida, 1971; Ph.D., 1974.

Bepko, Gerald L., *Vice President for Long-Range Planning and Chancellor* (IUPUI), *Professor of Law* (School of Law—Indianapolis) and *Adjunct Professor of Philanthropic Studies* (1972); B.S., Northern Illinois University, 1962; J.D., Illinois Institute of Technology, Chicago—Kent College of Law, 1965; LL.M., Yale University, 1972.

Bersier, Gabrielle, *Professor of German and Adjunct Associate Professor of Women's Studies* (1979); *Vorpruefung, Dolmetscherinstitut, Gutenberg-Universitaet, Mainz*, 1973; M.A., University of Wisconsin, 1974; Ph.D., 1979.

Bertrand, Didier Ghislain Andre, *Associate Professor of French* (1991); B.A., University de Picardie, 1982; M.A., University of Iowa, 1985; Ph.D., 1991.

Bingham, Dennis Patrick, *Associate Professor of English* (1991); B.A., Ohio State University, 1978; M.A., New York University, 1984; Ph.D., Ohio State University, 1990.

Bivin, David G., *Associate Professor of Economics* (1985); B.S., Ball State University, 1976; M.S., Purdue University, 1977; Ph.D., 1980.

Blake, J. Herman, *Adjunct Professor of Sociology* (1989); B.A., New York University, 1960; M.A., University of California, 1965; Ph.D., University of California, 1973.

Blomquist, William A., *Chair and Associate Professor of Political Science* (1987); B.S., Ohio University, 1978; M.A., 1979; Ph.D., Indiana University, 1987.

Bloom, Peter, *Assistant Professor of English* (2001); B.A., The American University, School of International Service, 1987; M.A., University of California—Los Angeles, 1992; Ph.D., 1997.

Bodenhamer, David J., *Professor of History, Adjunct Professor of American Studies, and Director of POLIS* (1989); B.A., Carson-Newman College, 1969; M.A., University of Alabama, 1970; Ph.D., Indiana University, 1977.

Bombke Keating, Amy, *Lecturer of Spanish* (2001); B.S., IUPUI, 1994; M.A., University of Northern Iowa, 1998.

Bonner, Jeffrey P., *Adjunct Professor of Anthropology* (1995) and *President, Indianapolis Zoological Society*; B.A., University of Missouri, 1975; M.A., Columbia University, 1977; Ph.D., 1981.

Boyd, Mary E., *Lecturer of English* (1997); B.A., University of California, Los Angeles, 1956; M.A., Indiana University, 1987.

Brand, Myles, *President, Indiana University; Professor of Philosophy* (IUB and IUPUI) (1994); B.S., Rensselaer Polytechnic Institute, 1964; Ph.D., University of Rochester, 1967.

Brand, Peg Z., *Assistant Professor of Philosophy and Gender Studies* (IUB); *Adjunct Assistant Professor of Women's Studies* (1995); B.A., University of Illinois at Chicago, 1973; M.A., University of Wisconsin, 1975; M.A., University of Illinois at Chicago, 1978; Ph.D., 1985.

Brant, Herbert J., *Associate Professor of Spanish* (1992); B.A., Rosary College, 1980; A.M., University of Illinois, 1985; Ph.D., 1990.

Brennan, Ellen Martens, *Lecturer in Foreign Languages and Cultures/Spanish* (1998) (1993); B.A., Indiana University, 1975; M.A., Indiana University, 1979.

- Bringle, Robert G., *Professor of Psychology (School of Science), Director of Service Learning, and Adjunct Professor of Philanthropic Studies (1974)*; B.A., Hanover College, 1969; M.S., University of Massachusetts, 1972; Ph.D., 1974.
- Brothers, Timothy S., *Associate Professor of Geography; Adjunct Associate Professor of Geology and Adjunct Associate Professor of Philanthropic Studies (1984)*; B.A., University of California, Davis, 1978; M.A., University of California, Los Angeles, 1981; Ph.D., 1985.
- Brown, James W., *Associate Dean of IU School of Journalism and Adjunct Professor of Communication Studies (1971)*; B.S., Southern Illinois University, 1967; M.S., Indiana University, 1971; M.B.A., 1973; Ph.D., 1977.
- Burke, Jonathan L., *Associate Professor of Economics (1998)*; B.A., University of California, Los Angeles, 1981; Ph.D., Maryland Institute of Technology, 1985.
- Burke, Michael B., *Chair and Professor of Philosophy (1980)*; B.A., University of Virginia, 1964; Ph.D., University of Wisconsin, 1976.
- Burks, Arthur W., *Adjunct Professor of Philosophy and Executive Consultant for the Peirce Edition Project (1994)*; B.A., DePauw University, 1936; M.A., University of Michigan, 1937; Ph.D., 1941.
- Burlingame, Dwight F., *Librarian (University Libraries), Associate Director of Academic Programs, Center on Philanthropy, and Adjunct Professor of Philanthropic Studies (1992)*; B.A., Moorhead State University, 1965; M.S., University of Illinois, 1967; Ph.D., Florida State University, 1974.
- Burr, David Bentley, *Chairperson and Professor of Anatomy and Adjunct Professor of Anthropology (1989)*; B.A., Beloit College, 1973; M.A., University of Colorado—Boulder, 1974; Ph.D., 1977.
- Burton, Cathy Anne, *Adjunct Assistant Professor of Anthropology (1996)*; B.A., California State University, 1980; M.A., 1991.
- Cambridge, Barbara L., *Associate Dean of the Faculties, Professor of English, Adjunct Professor of Women's Studies (1982)*; B.A., Bradley University, 1965; Ph.D., Indiana University, 1983.
- Carlin, Paul S., *Associate Professor of Economics and Adjunct Associate Professor of Women's Studies (1985)*; B.A., Tufts University, 1967; M.A., Georgetown University, 1972; Ph.D., University of Pittsburgh, 1985.
- Carrig, Sarah, *Lecturer of Spanish (2001)*; B.A., Williams College, 1981; M.A., University of Wisconsin—Madison, 1985.
- Chafel, Judith Ann, *Associate Professor of Education (School of Education, Bloomington) and Adjunct Associate Professor of Philanthropic Studies (1980)*; A.B., Vassar College, 1967; M.S.Ed., Wheelock College, 1971; Ph.D., University of Illinois, 1979.
- Chakrabarti, Subir K., *Professor of Economics (1985)*; B.S., North Eastern Hill University, 1976; M.A., Jawaharlal Nehru University, 1978; Ph.D., University of Iowa, 1985.
- Cochrane, Jennifer, *Lecturer in Communication Studies (1998)*; B.A., Heidelberg College, 1970; M.A., Purdue University, 1972.
- Coleman, Annie Gilbert, *Assistant Professor of History (1998)*; B.A., Williams College, 1987; M.A., University of Colorado, 1992; Ph.D., 1996.
- Connor, Ulla Maija, *Professor of English, Adjunct Professor of Women's Studies and Director of ICIC (1998) (1984)*; B.A., University of Helsinki, 1970; M.A., University of Florida, 1972; M.A., University of Helsinki, 1973; M.A., University of Wisconsin, 1973; Ph.D., 1978.
- Cook, Della Collins, *Associate Professor of Anthropology (IUB), Adjunct Associate Professor of Anthropology (IUPUI) (1973)*; B.A., Cornell University, 1969; M.A., University of Chicago, 1971; Ph.D., 1976.
- Craig, David, *Assistant Professor of Religious Studies (2000)*; B.A., Oberlin College, 1987; M.T.S., Harvard Divinity School, 1990; M.A., Princeton University, 1995; Ph.D., 1998.
- Cramer, Kevin, *Assistant Professor of History (2000)*; B.A., The City College of New York, 1989; M.A., Harvard University, 1990; Ph.D. 1998.
- Cutler, Kenneth E., *Associate Professor of History (1972)*; B.A., Wabash College, 1960; M.A., Indiana University, 1961; Ph.D., 1965.
- Davis, Kenneth W., *Professor of English (1988)*; B.A., Drake University, 1967; M.A., Columbia University, 1968; Ph.D., University of Michigan, 1975.
- Davis, Thomas J., *Associate Professor of Religious Studies (1989)*; B.A., West Georgia College, 1979; M.Div., Louisville Presbyterian Theological Seminary, 1982; Ph.D., University of Chicago, 1992.
- DeBoer, Wietse, *Associate Professor of History (1994)*; B.A., University of Amsterdam, 1982; M.A., 1986; Ph.D., Erasmus University Rotterdam, 1995.
- Deb, Partha, *Associate Professor of Economics (1991)*; B.S., Calcutta University, 1986; M.A., Rutgers University, 1988; Ph.D., 1991.
- De Tienne, André, *Assistant Professor of Philosophy and Associate Editor in the Peirce Edition Project (1992)*; B.A., Facultés Universitaires Saint-Louis (Brussels), 1982; M.A., Catholic University of Louvain (Louvain-la-Neuve), 1984; Ph.D., 1991.
- De Waal, Cornelis, *Adjunct Assistant Professor of Philosophy (1999) and Assistant Editor of the Peirce Edition Project (1999)*; B.A., Erasmus University Rotterdam, 1984; M.A., 1988; M.A., 1989; Ph.D., University of Miami, 1997.
- DeWester, Janet, *Lecturer of Communication Studies (2001)*; B.A., Purdue University, 1975; M.A., 1979.
- DiCamilla, Frederick J., *Associate Professor of English (1990)*; B.A., University of Delaware, 1969; M.A., 1982; Ph.D., 1991.
- Dick, Robert C., *Professor of Communication Studies (1975)*; B.S., Emporia State University, 1960; M.A., University of New Mexico, 1961; Ph.D., Stanford University, 1969.
- Dickerson-Putman, Jeanette, *Associate Professor of Anthropology and Adjunct Associate Professor of Women's Studies (1989)*; B.A., Eisenhower College, 1974; M.A., Arizona State University, 1981; Ph.D., Bryn Mawr College, 1986.
- Dickey, Stephanie S., *Assistant Professor of Art History (Herron School of Art) and Adjunct Assistant Professor of Women's Studies (1995)*; A.B., Smith College, 1975; M.A., Ph.D., Institute of Fine Arts of New York University, 1994.
- Dobris, Catherine A., *Associate Professor of Communication Studies and Adjunct Assistant Professor of Women's Studies (1993)*; B.S., Emerson College, 1981; M.A., Indiana University, 1984; Ph.D., 1989.
- Donle, Harold, *Lecturer of Communication Studies (2001)*; B.A., Central Connecticut State University, 1993; M.A., IUPUI Fort Wayne, 2000.
- Donnelly, Eleanor, *Associate Professor of Nursing (School of Nursing) and Adjunct Associate Professor of Anthropology (1980)*; B.S., D'Youville College, 1969; M.S., State University of New York at Buffalo, 1972; M.A., 1978; Ph.D., 1984.
- Duerksen, Aye Nu, *Lecturer in English (1997)*; B.A., Arts and Science University, 1968; M.A., Macquarie University, 1974; Ph.D., Ball State University, 1994.
- Duffy, Kate, *Lecturer of English (2001)*; B.A., Ball State University, 1978; M.A., Butler University, 1987.
- Dwyer, Owen, III, *Assistant Professor of Geography (2000)*; B.S., Pennsylvania State University, 1992; M.S., 1995; Ph.D., University of Kentucky, 2000.
- Eller, Jonathan R., *Professor of English and Adjunct Professor of American Studies, Textual Editor of Peirce Project (1993)*; B.S., United States Air Force Academy, 1973; B.A., University of Maryland, 1979; M.A., Indiana University, 1981; Ph.D., 1985.
- Elmore, Garland C., Jr., *Associate Professor of Communication Studies and Dean of Office of Information Technology (1977)*; B.A., Concord College, 1968; M.A., Marshall University, 1971; Ph.D., Ohio University, 1979.
- Erickson, Susan, *Lecturer of Political Science (2001)*; B.A., University of Minnesota, 1981; M.A., University of California, Berkeley, 1982.
- Fedor, Thomas S., *Associate Professor of Geography (1976)*; B.A., University of Wisconsin—Milwaukee, 1965; M.A., 1967; Ph.D., University of Chicago, 1973.
- Ferguson, Margaret R., *Assistant Professor of Political Science (1996)*; B.A., University of Southern Mississippi, 1990; M.A., University of North Carolina at Chapel Hill, 1993; Ph.D., 1996.
- Fleming-Moran, Millicent E., *Adjunct Assistant Professor of Anthropology (1993)*; A.B., University of Florida, 1973; M.A., 1975; M.P.A., Indiana University, 1978; Ph.D., University of North Carolina at Chapel Hill, 1988.
- Ford, David A., *Chair and Associate Professor of Sociology (1976)*; B.A., Oberlin College, 1968; M.A., University of Hawaii, 1970; Ph.D., University of Pittsburgh, 1976.
- Fox, Stephen Lee, *Associate Professor of English (1992)*; B.A., University of Georgia, 1976; M.A., Duke University, 1977; M.Div., Southern Baptist Theological Seminary, 1984; Ph.D., University of Wisconsin—Madison, 1992.
- Freeman, Julie E., *Lecturer in English (1996)*; B.A., Indiana Wesleyan University, 1979; M.S., Indiana University (IUPUI), 1994.

- Friedman, Lawrence, *Professor of History (College of Arts and Sciences—IUB) (1995) and Adjunct Professor of Philanthropic Studies (1993)*; B.A., University of California, Riverside, 1962; M.A., University of California, Los Angeles, 1965; Ph.D., 1967.
- Garcia, Gustavo, *Assistant Professor of Spanish (2000)*; B.S./M.S., San Simon University, 1985; M.S., The Pennsylvania State University, 1990; M.A., State University of New York—Albany, 1993; Ph.D., University of Wisconsin—Madison, 1997.
- Gardner, Carol Brooks, *Professor of Sociology, Adjunct Associate Professor of American Studies, and Adjunct Associate Professor of Women's Studies (1986)*; B.A., University of California, Berkeley, 1969; Ph.D., University of Pennsylvania, 1983.
- Gibboney, Roberta K., *Director of Development for the School of Nursing and Adjunct Assistant Professor of Environments for Health (School of Nursing) and Philanthropic Studies (1990)*; B.A., Brown University, 1975; M.A., State University of New York, 1977; Ph.D., Indiana University, 1997.
- Goering, Elizabeth Marie, *Associate Professor of Communication Studies (1990)*; B.A., Bethel College, 1979; M.A., Wichita State University, 1984; Ph.D., Purdue University, 1991.
- Goff, Philip, *Associate Professor of Religious Studies and Director, Center for the Study of Religion and American Culture (2000)*; B.A., Nyack College, 1986; M.A., University of Kansas, 1988; Ph.D., University of North Carolina, Chapel Hill, 1993.
- Gondola, Ch. Didier, *Assistant Professor of History (1999)*; B.A., Université Paris—I, 1987; M.A., Université Paris—VII, 1988; Ph.D., 1993.
- Gordon, Lewis R., *Adjunct Assistant Professor of Philosophy and American Studies (IUPUI) and Assistant Professor of Philosophy (Purdue University) (1993)*; Ph.D., Yale University, 1993.
- Gramelspacher, Gregory, *Associate Professor of Medicine (School of Medicine) and Adjunct Associate Professor of Philanthropic Studies (1989)*; B.A., University of Notre Dame, 1975; M.D., Indiana University, 1982.
- Greene, Roberta R., *Professor of Social Work (School of Social Work) and Adjunct Professor of Philanthropic Studies (1994)*; B.A., Michigan State University, 1960; M.S.W., 1962; Ph.D., University of Maryland, 1980.
- Gronbjerg, Kirsten A., *Professor of Public and Environmental Affairs (IUB) and Adjunct Professor of Philanthropic Studies (1997)*; B.A., Pitzer College, 1968; M.S., University of Chicago, 1970; Ph.D., 1974.
- Gronfein, William P., *Associate Professor of Sociology (1986)*; B.A., University of Chicago, 1968; M.A., State University of New York at Stony Brook, 1981; Ph.D., 1983.
- Grossmann, Claudia E., *Visiting Assistant Professor of German (1985)*; Staatsexamen, University of Siegen, 1981; Ph.D., 1985.
- Gunderman, Richard B., *Assistant Professor of Medical Education and of Radiology (School of Medicine) and Assistant Professor of Philanthropic Studies and of Philosophy (1997)*; A.B., Wabash College, 1983; Ph.D., University of Chicago, 1989; M.D. 1992.
- Haas, Ain E., *Associate Professor of Sociology (1978)*; B.A., Indiana University, 1972; M.S., University of Wisconsin—Madison, 1973; Ph.D., 1977.
- Haas, Linda L., *Professor of Sociology and Adjunct Professor of Women's Studies (1977)*; B.A., Indiana University, 1972; M.S., University of Wisconsin—Madison, 1973; Ph.D., 1977.
- Hamilton, Sharon, *Professor of English and Director of Campus Writing (1987)*; B.A., University of Winnipeg, 1969; B.Ed., University of Manitoba, 1978; M.Ed., 1982; Ph.D., University of London, 1986.
- Harrington, Susanmarie, *Associate Professor of English and Director of Placement and Assessment, Adjunct Associate Professor of Women's Studies (1993)*; A.B., Dartmouth College, 1984; A.M., University of Michigan, 1987; Ph.D., 1990.
- Harris, Peter M. G., *Adjunct Associate Professor of History (1996)*; B.A., Harvard College, 1950; Ph.D., Columbia University, 1960.
- Harris, Robert B., *Professor of Economics and Director, Center for Economic Education (1981)*; B.A., Ohio State University, 1968; M.A., 1970; Ph.D., 1979.
- Harstad, Peter T., *Adjunct Professor of History (1985) and Executive Secretary, Indiana Historical Society*; A.A., Bethany Lutheran College, Mankato, 1955; B.S., University of Wisconsin—Madison, 1957; M.A., 1959; Ph.D., 1963.
- Hill, Beverly E., *Director and Adjunct Associate Professor of Medical Education Resources Program (School of Medicine) and Adjunct Associate Professor of Communication Studies (1981)*; B.A., College of Holy Names, 1960; M.S., Dominican College, 1969; Ed.D., University of Southern California, 1978.
- Hoegberg, David E., *Associate Professor of English (1991)*; B.A., Pennsylvania State University, 1979; M.A., University of Michigan, 1981; Ph.D., 1989.
- Hornbeck, Sally, *Lecturer of English (2001)*; B.S., Ball State University; M.S., Butler University.
- Houser, Nathan R., *Professor of Philosophy, Director of the Peirce Edition Project, and Adjunct Associate Professor of American Studies (1983)*; B.A., University of Waterloo, 1976; M.A., 1978; Ph.D., 1985.
- Hovde, Marjorie Rush, *Assistant Professor of Technical Communication (School of Engineering) and Assistant Professor of English (1996)*; B.A., Eastern Mennonite College, 1979; M.A., University of Iowa, 1984; Ph.D., Purdue University, 1994.
- Howard, Jay R., *Associate Professor of Sociology (IUPUI Columbus) (1992)*; B.A., Indiana University, 1988; M.A., University of Notre Dame, 1990; Ph.D., 1992.
- Hoyt, Giles R., *Professor of German (1976) and Associate Dean for International Programs*; B.A., Harpur College, 1965; M.A., State University of New York at Binghamton, 1967; Ph.D., University of Illinois, 1973.
- Hughes, Michal, *Lecturer of English (2001)*; B.S., Indiana State University, 1979; M.L.S., Indiana State University, 1980.
- Hunter, James R., *Lecturer in Sociology (1991)*; B.A., Juniata College, 1963; M.A., Bowling Green State University, 1965.
- Huntoon, Laura E., *Assistant Professor of Public and Environmental Affairs (School of Public and Environmental Affairs) and Adjunct Assistant Professor of Philanthropic Studies (1991)*; A.B., Harvard University, 1977; M.A., University of Pennsylvania, 1985; Ph.D., 1991.
- Jackson, Barbara Dale, *Associate Professor of Anthropology, Adjunct Associate Professor of Women's Studies, and Associate Dean for University College (1974)*; B.A., Hunter College, 1965; M.A., University of Minnesota, 1967; Ph.D., 1973.
- Jackson, William J., *Professor of Religious Studies (1985)*; B.A., Lyndon State College, 1975; M.T.S., Harvard Divinity School, 1977; M.A., Harvard University, 1979; Ph.D., 1984.
- Jacobi, Peter Paul, *Professor of Journalism (School of Journalism, Graduate School, IUB) and Adjunct Professor of Philanthropic Studies (1985)*; B.S.J., Northwestern University, 1952; M.S.J., 1953.
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- Bogar, Bernerd, *Professor Emeritus of English* (1966-1996).
- Bourke, Leon H., *Professor Emeritus of French* (1970-1990).
- Brock, Marian S., *Associate Professor Emerita of English* (1966-1991).
- Buhner, John C., *Professor Emeritus of Political Science (School of Liberal Arts) and Professor Emeritus of Public and Environmental Affairs* (1948-1984).
- Burns, David G., *Associate Professor Emeritus of Communication Studies* (1965-1990).
- Byrne, Edmund, *Professor Emeritus of Philosophy* (1969-1998).
- Casebeer, Edwin P., *Professor Emeritus of English* (1963-1997).
- Cherry, C. Conrad, *Distinguished Professor Emeritus of Religious Studies* (1991-2001).
- Curtis, Richard K., *Professor Emeritus of Communication Studies* (1969-1993).
- Dauner, M. Louise, *Professor Emerita of English* (1963-1977).
- Dial, Donna Kay, *Associate Professor Emerita of Economics* (1969-1997).
- Donchin, Anne, *Professor Emerita of Philosophy and Adjunct Professor of Women's Studies* (1982-2001).
- East, James R., *Professor Emeritus of Communication Studies* (1967-1996).
- Fredland, Richard A., *Professor Emeritus of Political Science* (1970-2001).
- French, Warren G., *Professor Emeritus of English* (1970-1986).
- Friedman, Bernard, *Professor Emeritus of History* (1961-1989).
- Frye, Robert, *Associate Professor Emeritus of Philosophy* (1956-1988).
- Gray, Ralph D., *Professor Emeritus of History* (1964-1997).
- Jessner, Sabine, *Associate Professor Emerita of History and Adjunct Associate Professor of Women's Studies* (1968-1988).
- Juillerat, Monte E., *Professor Emeritus of Economics* (1966-1994).
- Keller, Joseph R., *Professor Emeritus of English* (1955-1987).
- Kinzer, Donald L., *Professor Emeritus of History* (1966-1983).
- Kirk, Robert, *Professor Emeritus of Economics* (1972-2001).
- Koo, Shou-Eng, *Professor Emeritus of Economics* (1967-1987).
- Liell, John T., *Professor Emeritus of Sociology* (1954-1988).
- McGeever, Patrick, *Professor Emeritus of Political Science* (1971-2001).
- Mena, Lucila, *Associate Professor Emerita of Spanish* (1978-2000).
- Nagy, Paul, *Professor Emeritus of Philosophy* (1968-2001).
- Payton, Robert, *Professor Emeritus of Philanthropic Studies* (1988-1998).
- Plotinsky, Melvin L., *Associate Professor Emeritus of English* (1986-1997).
- Rea, Mary Louise, *Professor Emerita of English* (1946-1985).
- Rhorne, Frances Dodson, *Professor Emerita of English* (1969-1986).
- Riesterer, Berthold, *Associate Professor Emeritus of History* (1967-1999).
- Scherle, Phyllis, *Assistant Professor Emerita of English* (1962-1993).
- Sehlinger, Peter, *Professor Emeritus of History* (1969-1999).
- Seldon, Mary Elizabeth, *Professor Emerita of History* (1949-1981).
- Shippis, Jan B., *Professor Emerita of History and of Religious Studies and Adjunct Professor of Philanthropic Studies* (1973-1994).
- Smurl, James, *Professor Emeritus of Religious Studies* (1973-1998).
- Taylor, Joseph T., *Professor Emeritus of Sociology* (1965-1983) and *Dean Emeritus of the School of Liberal Arts* (1967-1978).
- Wagner, B. Bruce, *Associate Professor Emeritus of Communication Studies* (1963-1998).
- Webb, Dorothy, *Professor Emerita of Communication Studies* (1973-2000).
- Webb, J. Edgar, *Professor Emeritus of Communication Studies* (1966-1993).
- Winslow, Charles H., *Associate Professor Emeritus of Political Science* (1967-1999).

INDIANA UNIVERSITY SCHOOL OF LIBRARY AND INFORMATION SCIENCE



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Contents

355	School of Library and Information Science—The World of Information
355	The School
355	History
356	Mission
356	Goals and Objectives of the M.L.S. Program
356	Admission to Graduate Programs
356	Application Procedures for U.S. Citizens
357	Application Deadlines for U.S. Citizens
357	Application Procedures for International Students
357	Application Deadlines for International Students
357	Admission Criteria
357	Master of Library Science Degree Program
358	Admission Categories
358	Advising
358	Degree Requirements
358	Master of Library Science Degree Program
358	Computer-Based Information Skills
358	Probation Policy
358	Time Requirements
358	Foreign Language
358	Course Requirements
358	Foundations
359	M.L.S. Degree Requirements
359	M.L.S./Specialization in Library Technology Management
359	Dual Master's Degree Program: Master of Library Science – Master of Arts in History
359	School Library/Media and Information Technology Certification
360	School Library Services Minor
360	School Media Services Major and the M.L.S.
360	Courses Open to Undergraduates
360	Public Library Certification Requirements
360	General Information
360	Grade Computation
361	Grade of Incomplete (I)
361	Deferred Grade (R)
361	Computer Accounts
361	Placement
361	SLIS Alumni Association
361	Summer Sessions
361	Financial Aid
362	Courses
366	Administrative Officers
366	Faculty

School of Library and Information Science—The World of Information

For decades, scholars and futurists have predicted an information revolution. Those predictions have come to life dramatically in recent years. We live in an information age, an age in which the ability to generate and access new knowledge has become a key driver of social and economic growth. This conviction is powerfully reflected in the development of the information superhighway and in the feverish spate of takeovers and joint ventures in the telecommunications, cable, and computer industries, as the major players position themselves to be in the vanguard of the digital revolution. Such developments are transforming both scholarly and lay perceptions of the value of information.

In many developed nations, the information sector is among the fastest growing segments of the economy. The growth of a dynamic global information industry has created a wealth of opportunities for information professionals, but it has also thrown into relief a raft of complex public policy issues, such as privacy and cyber-surveillance, privatization of government-held information resources, the management of intellectual property rights, and the emergence of a digital divide, all of which call for rigorous and informed policy analysis.

The signs of a new age are everywhere: the World Wide Web and electronic commerce, personal computers in the classroom, interactive media in the home, virtual universities, electronic publishing, digital libraries. The statistics are irresistible; the amount of information produced in the last decade alone is greater than all the information created in past millennia. The rhetoric of the information age has finally become reality. And that reality translates into unprecedented career opportunities for information professionals who know how to organize, manage, and exploit knowledge assets; who combine analytic and technical skills with a sense of the strategic value of information to organizations of all kinds.

The economic and social well-being of nations depend increasingly on their ability to generate and access new knowledge. The "informatization" of society is creating demand for specialists who will function as information resource managers and act as guides, interpreters, mediators, brokers, and quality controllers for the ultimate user, who might be a corporate executive, a scientist, or a schoolchild. Today's information professionals do not merely store and locate information; they also analyze and synthesize raw data to produce customized, value-added services and products for a diverse clientele. The field offers a kaleidoscope of career tracks from which to choose: Web design, information systems analysis, database design and marketing, information brokering, medical informatics, systems librarianship,

competitor intelligence analysis, usability testing. In a sense, the opportunities are limited only by the imagination.

On one issue there is widespread agreement: the effective management of information systems and resources is critical to successful organizational performance. That is as true of a Fortune 500 corporation as of a hospital or a small liberal arts college. Information resources include, but are by no means synonymous with, the materials held in libraries, archives, and documentation centers. In the digital age, organizations of all kinds are waking up to the fact that intellectual capital is one of their most important resources—the basis of comparative advantage and superior service delivery. It is this awareness, as much as the highly visible information technologies that are responsible for transforming the ways in which business, commerce, professional affairs, and contemporary scholarship are being conducted.

Libraries, too, are changing. Librarians are active agents of social change and early adopters of new information and communication technologies. The range of materials and media they handle has diversified enormously in the last decade. Access to full-text databases, networked resources, and multimedia information systems has become the norm in a matter of years, fueled in no small measure by the prodigious growth of the Internet and the World Wide Web. The next few years promise even greater advances—global digital libraries, intelligent interfaces, interactive books, collaboratories, intelligent agents, virtual reality. Indiana University's School of Library and Information Science is responding to the challenge with a flexible and forward-looking curriculum, which stresses those social, behavioral, and cultural aspects of information design and use.

The School: American Library Association-Accredited Master of Library Science

The School of Library and Information Science (SLIS) at Indiana University ranks consistently in the top five or ten programs in North America, and its master's and doctoral enrollments are among the largest in the nation. In a recent six-year survey of scholarly productivity and impact, the school was ranked number one (in *Library Quarterly*, April 2000). The M.L.S. (Master of Library Science) degree has been accredited by the American Library Association continuously since 1953. The pioneering M.I.S. (Master of Information Science) degree, available at the Bloomington campus, adds another avenue of entry to the information professions. In addition to these two accredited programs, the school offers a Ph.D. in Information Science, a Specialist in Library and Information Science, specializations in African Studies Librarianship, Chemical Information, Music Librarianship, Special Collections, and a dual master's/Doctor of Jurisprudence program with the School of Law. There are also dual master's degree programs with the Schools of Fine Arts, Journalism,

Music, and Public and Environmental Affairs, and the Departments of Comparative Literature, History, History and Philosophy of Science, Latin American and Caribbean Studies, and Russian and East European Studies. Course work leading to certification in public libraries and in school media is also available.

At SLIS we bring fresh insights to bear on information design, access, and policy issues by looking at information and information technologies in diverse human contexts. We seek to understand the behaviors, cognitive factors, social practices, media, and tools that foster and hinder effective information use. We place a strong emphasis on the social and behavioral dimensions of information technology.

SLIS has a full-time faculty of 18, supplemented by a distinguished emeritus, visiting, and adjunct faculty.

The School of Library and Information Science is located on the Bloomington campus, and offers a full M.L.S. program at Indianapolis. All students have access to the extraordinary physical and human resources of Indiana University, including one of the largest university computing networks in the world and a university library system that ranks thirteenth in the nation in terms of its holdings. Included in this system is the prestigious Lilly Library, which is internationally known for its rare books, manuscripts, and special collections.

The IU School of Library and Information Science is a member of the Association for Library and Information Science Education, the American Library Association, the American Society for Information Science, and the Special Libraries Association. It maintains affiliation with a number of other national and international bodies in library and information science.

The History of SLIS at Indiana University

The School of Education offered the first organized library science curriculum at Indiana University, a program for the preparation of school librarians, in the summer of 1930. In 1938 this curriculum was expanded and made available in the regular school year as well as during the summer session.

In 1947 the Division of Library Science was established within the School of Education. A basic undergraduate curriculum in library science concerned with the fundamental processes common to all types of libraries was offered as a minor within the four-year program leading to the Bachelor of Arts or Bachelor of Science degree in the College of Arts and Sciences or to the Bachelor of Science degree in the School of Education.

Fifty Years of Graduate Education in Library and Information Science: 1949–99 A five-year program leading to the Master of Arts with a major in library science, granted by the graduate school, was created in 1949, and a Ph.D. program in library and information science was established in 1964.

In 1966 the Trustees of Indiana University established the Graduate Library School and the professional degree Master of Library Science (M.L.S.), replacing the Master of Arts degree granted by the graduate

school. The Specialist degree program was added to the curriculum in 1978. In 1980 the name of the school was officially changed to School of Library and Information Science (SLIS). In 1985 an extensive menu of graduate courses leading to the M.L.S. degree was added to the Indianapolis campus.

The Mission of SLIS

The school provides students with an understanding of the conceptual foundations of librarianship and information science and of the multifaceted nature of the wider information environment. It prepares students with a rich mix of knowledge, attitudes, and skills necessary to function as critical thinkers and effective communicators. Graduates should have a strong grounding in theory and the ability to translate theory into effective practice.

To provide a proper setting for the implementation of this mission, the school promotes the advancement of knowledge, both theoretical and applied, through active programs of research and scholarly publication. The school also provides service within the university and to the local, national, and international communities through contributions to, and leadership in, associations and organizations, and by assuming consulting, advising, publishing, and other professional roles. This leadership by example is considered essential in providing a framework in which the goals of the program can be pursued effectively.

The school also provides opportunities for students to seek educational experiences involving the development of the specialized skills currently emphasized in information-providing agencies. The development of these skills often highlights current trends in information systems and information management that serve to assist the student in career planning. Such educational experiences are gained through selection of elective courses from the School of Library and Information Science, through cooperation with other graduate programs of the university, and through seminars, workshops, conferences, group projects, internships, and practicum experiences.

Goals and Objectives of the M.L.S. Program

The M.L.S. 2001 degree option is innovatively designed to meet the new challenges of our profession. Students are introduced to the roles and functions of libraries in contemporary society. They become familiar with key policy issues and technological trends, and with how these issues and trends affect libraries and information centers of all kinds. Students learn to manage and evaluate collections, respond to the information needs of patrons, and to use technology to improve access to information. Students who complete the program are prepared for careers in library administration, public services, technical services, reference services, and collection development at public, school, academic, and special libraries. Students may complete the M.L.S. requirements on the Bloomington or Indianapolis campuses.

Upon completion of the M.L.S. program, graduates will be prepared to:

Assist and Educate Users of Libraries and Information Centers (L524) Analyze and identify information needs of a variety of age, academic, economic, and social groups, and apply appropriate search strategies for effective information retrieval in each situation.

Educate users and potential users of information systems to locate and evaluate information resources.

Analyze and evaluate the provision of information systems and services in a variety of library and information settings.

Develop and Manage Library Collections (L528) Prepare and apply policies and procedures that support the selection and acquisition of information resources, which will meet the information needs of an organization, institution, or community.

Manage, evaluate, and preserve collections of information resources.

Organize and Represent Information Resources (L505/L525 or L520) Understand and effectively apply principles of representation and systems of organization to provide access to resources in a variety of library and information environments.

Apply Management and Leadership Skills (L527, L550, L553, or L587) Understand a wide range of organizational structures and management and leadership styles; demonstrate positive attitudes and constructive actions, which characterize innovative leadership.

Recognize the value of collaborative planning and project management.

Apply the interpersonal and organizational skills necessary to manage and evaluate projects and personnel successfully.

Work effectively within and across a variety of organizational structures.

Communicate an organization's values and contributions, and identify sources that will support the organization's activities.

Conduct and Analyze Research (L509, L643, or L651) Understand and apply research and evaluation methods to investigate questions related to the acquisition, representation, organization, use, and/or dissemination of information.

Analyze and interpret findings of such research and evaluation.

Demonstrate Basic Technical Expertise (L401 or equivalent) Understand the basic applications of modern technology in today's libraries and other information environments.

Approach Professional Issues with Understanding (completion of M.L.S. degree electives) Comprehend the social, political, and legal aspects of information creation, access, and ownership. Engage in continuing learning in professional organizations in library and information science.

All courses leading to completion of the MLS may be taken through IUPUI.

Admission to Graduate Programs

Application Procedures for U.S. Citizens

A packet of application materials for the Master's or Specialist Degree Programs may be obtained from

School of Library and Information Science
Administrative Office
IUPUI
University Library 1110C
755 W. Michigan Street
Indianapolis, IN 46202-5195
(317) 278-2376
callison@indiana.edu

Application packets for both Indianapolis and Bloomington programs may be requested online. Please be sure to request the application packet for the appropriate degree program—Master of Library Science or Specialist. All applications must be submitted to the SLIS Admissions Office in Indianapolis.

www.slis.iupui.edu

Application to SLIS graduate programs requires a *minimum* of the following (additional requirements may be found under listings for individual degrees):

1. Completed application forms.
2. Three letters of recommendation that address the applicant's academic and professional capabilities should be submitted on letterhead and sent directly from the referring party to the SLIS admissions office in Indianapolis. It is the applicant's responsibility to ensure that letters of recommendation reach the admissions office by deadline dates.
3. A personal essay explaining academic and career objectives (minimum 500 words).
4. Official transcripts from *each* college attended (except Indiana University transcripts, which the school can obtain from the IU registrar's online system). From all other colleges and universities, applicants should arrange to have transcripts sent directly to SLIS.
5. Graduate Record Examination (GRE) scores for master's degree program applicants whose grade point average (GPA) in undergraduate college work is not at least 3.0 on a 4.0 scale, or whose GPA on work completed for a previous graduate degree is not 3.2 or higher. Master's program applicants are advised that GRE scores, if

provided, will be taken into account in the competitive admissions process and awarding of departmental financial aid. The test must have been taken within three years before application. GRE information and application forms may be obtained from the Educational Testing Service, P.O. Box 6000, Princeton, NJ 08541-6000. Scores are available about six weeks after the test is taken. It is the responsibility of the applicant to take the GRE test at such a time as will allow scores to arrive at the admissions office to meet all school deadlines.

6. An application fee. A check or money order must be sent *directly* to the bursar's office in the addressed envelope provided in the application packet.
7. Some programs have application requirements in addition to those listed above. For further information, see admission requirements for the degree in which you are interested.

When completed application forms are received, an applicant's individual file is established, and other elements of the application are added to the file as they are received. It is important that applicants send the completed application as early as possible. Admission, once granted, is good for a period of one year; however, such extended admission cannot be guaranteed unless the admitted student informs the school of intent to matriculate at a later date. Files of admitted students who neither matriculate nor request an extension may be purged soon after the beginning of the semester for which admission was granted. An individual may check on the status of an application file or request an extension to a later consideration date by calling SLIS at (317) 278-2375 or toll free within the United States at (888) 335-SLIS.

Application Deadlines for U.S. Citizens

Applications will not be acted upon until all required documents have been received. Ordinarily applications for master's and specialist degrees are processed within one month of their completion. In order to allow time for degree processing and financial aid decisions, applicants must meet the following deadlines:

For matriculation in: **Fall** **Spring** **Summer**

Applying for

SLIS financial aid: Jan. 15 Oct. 1 N/A

Not applying for

SLIS financial aid: May 15 Nov. 1 Mar. 15

Applicants who complete the financial aid form included with the SLIS application packet and who have a completed file by the financial aid deadlines given above will be considered for all aid for which they are eligible that is offered directly by the school. Financial aid opportunities from SLIS are detailed elsewhere in this bulletin. For information on financial aid not directly funded by SLIS, applicants to the Indianapolis program should contact:

Office of Student Financial Aid Services

IUPUI
Cavanaugh Hall 103
425 N. University Blvd.
Indianapolis, IN 46202-5140
(317) 278-4723
finaid5@iupui.edu

Application Procedures for International Students

International applicants to SLIS programs in Indianapolis may obtain application materials from

School of Library and Information Science
Administrative Office
IUPUI
University Library 1110C
755 W. Michigan Street
Indianapolis, IN 46202-5195
(317) 278-2376
callison@indiana.edu

Please be sure to request the application packet for the appropriate degree program—Master of Library Science or Specialist. International students and permanent residents attending IUPUI need to return completed forms and all supporting materials to

Office of International Affairs
IUPUI
Union Building 207
620 Union Drive
Indianapolis, IN 46202-5167
(317) 274-7294
intlaff@iupui.edu

Payment of an application fee is required.

Application packets for both Indianapolis and Bloomington programs may be requested online.

All international applicants for any SLIS degree program—Master's or Specialist—must submit a recent official Graduate Record Examination (GRE) General (aptitude) Test score report from the Educational Testing Service. The test must have been taken within three years before application. Scores on all three sections (verbal, quantitative, and analytical) will be considered. A minimum combined score of 1500 is required for an application to be processed further. The Educational Testing Service provides GRE information and application forms. Materials are available from the Educational Testing Service, P.O. Box 6000, Princeton, NJ 08541-6000

Scores are available about six weeks after the test is taken. It is the responsibility of the applicant to take the GRE test at a time that will allow scores to arrive at the SLIS admissions office to meet all school deadlines.

International applicants whose first language is not English must submit recent official scores from the Test of English as a Foreign Language (TOEFL). A minimum TOEFL score of 600 is required for admission to SLIS graduate programs. The Educational Testing Service administers the TOEFL once each month at locations throughout the world. Information about TOEFL administration schedules may be obtained from the Educational Testing Service at the address given with GRE information above.

Students whose first language is not English must also take an English language placement test upon arrival at Indiana University. The results of this test are used to determine what, if any, remedial English courses must be successfully completed before graduate study

begins. International students should understand that all admissions are granted conditionally, upon verification of English language proficiency, and that enrollment in graduate course work is not permitted, or is limited, until all language deficiencies have been removed.

Additional Indianapolis campus information for international applicants can be found at the IUPUI Office of International Affairs.

Application Deadlines for International Students

The SLIS admissions office will not act upon applications until all required documents have been received (including transcripts, letters of recommendation, application fee, and GRE and TOEFL test scores as required). Ordinarily, applications for master's and specialist degrees are processed within one month of being completed and received at SLIS from the Office of International Admissions. International applicants must comply with the deadline dates indicated in international application materials.

Admission Criteria

Master of Library Science Degree Program

Students holding a bachelor's degree from an accredited four-year collegiate institution are eligible to apply for admission. Applicants in the final year of their undergraduate program may apply and be granted admission conditional upon their being awarded the bachelor's degree.

An applicant must have a minimum grade point average of 3.0 (on a 4.0 scale) or its equivalent in the total undergraduate program or an average of 3.2 in the latest graduate degree or representative graduate hours (usually 30 semester hours) completed. The SLIS admissions committee makes individual judgments about the rigor of grading in the undergraduate or graduate course work presented and about the relative significance of course work completed at various times in an applicant's academic history. Students who do not meet the SLIS cumulative grade point average requirements may submit GRE scores for consideration. GRE scores of at least 1500 (500 in each area) are required. Students may also address circumstances of low academic performance in an attachment to their application.

A substantial number of credit hours of appropriate content-based course work must be included in the overall undergraduate and graduate course work previously completed. This appropriate background includes, but is not limited to, course work in the humanities and the social, biological, and physical sciences. If an applicant is judged deficient in background preparation, additional course work may be required to remove the deficiency. Such additional course work may be at the undergraduate or graduate

level, but it will not in any case count toward the credit hour requirements for the SLIS degree. Letters of recommendation should be submitted by three individuals who are familiar with the applicant's academic abilities. Letters from employers and information professionals who are familiar with the applicant's intellectual abilities and work habits are also acceptable.

A personal goals essay of at least 500 words is required (see M.L.S. application). The essay must indicate a student's academic and professional goals appropriate to the desired SLIS degree program. The writing skills indicated in this statement are also considered as part of the admission decision.

We welcome applications from students of all backgrounds. *Indiana University prohibits admission decisions being made on the basis of arbitrary consideration of such characteristics as age, disability, ethnicity, gender, marital status, national origin, race, religion, sexual orientation, or veteran status.*

Matriculation Applicants may enter SLIS master's degree programs at the beginning of fall semester, spring semester, and the second summer session.

Admission Categories

Admission—A student's *full admission* status is valid for one year, with an additional year available upon petition. If an admitted student fails to matriculate within the allowed time, the admission status is terminated, and the student must reapply.

Probationary Admission—The SLIS Admissions Committee may grant *probationary admission* to a student who fails to meet one or more of the admission requirements listed above, if, in the judgment of the committee members, there is sufficient other evidence of probable success in the degree program. Probationary admission carries a requirement that the student maintain a *minimum* GPA of 3.0 throughout the program. Other conditions of the probationary admission, if any, will be stated in the admission letter. The student's progress will be monitored throughout the program to ensure that the conditions are maintained. If, at any time in the program, the student does not meet the conditions of the probation, admission will be terminated.

Applicants who are denied admission to a SLIS graduate program may not take course work in SLIS without the permission of the dean of the school.

SLIS Non-Degree Student Status—Students with an undergraduate degree may be permitted to take up to 6 credit hours of SLIS graduate course work prior to admission that could count towards their degree if admitted. Nondegree students must complete all necessary prerequisites before taking any course. Nondegree students may be removed from any SLIS course if their place is required for an admitted degree-seeking student. SLIS L401 is a prerequisite course to our degree programs, and does not count towards the credits for the degrees offered.

Undergraduate and nondegree students may take SLIS L401.

Auditing—There are few SLIS courses available for auditing. Auditing is to be limited to nonparticipating courses. Lab-based courses may not be audited. Students who wish to audit a course must obtain

written permission from the instructor. A student is not permitted to audit courses without registering as an auditor and paying the current fee for auditing.

Advising

Upon admission, each student is assigned an official faculty advisor whose name is given in the admission letter. Students should meet with their faculty advisors to discuss academic course planning and professional goals. Advisor signatures are also required for various approval forms. Students should carefully plan their course selections, noting appropriate prerequisites and required sequences. The SLIS Web site offers projected long-range course schedules. In addition to the assigned initial faculty advisor, students may consult with any member of the faculty for professional and career guidance.

Degree Requirements

Master of Library Science Degree Program (36 credit hours + L401)

Note: Exceptions to degree requirements must be approved in writing by the student's faculty advisor and by the SLIS administrative office. Approval forms for course waivers, transfer credit, etc. are available in the SLIS office. Most forms are also available on our Web site. It is the student's responsibility to ensure that written approval for any program exception is submitted to the SLIS administrative office for placement in the student's academic file.

Computer-Based Information Skills

The School of Library and Information Science requires that students be computer, network, and information literate and be familiar with basic operations that will be used throughout the students' course work. This knowledge is prerequisite to many courses in the SLIS curriculum and will form the basis for further learning and skill development throughout the students' academic and professional careers. To acquire this base, each student must complete, or apply and receive a waiver for, the SLIS course L401 Computer-Based Information Tools. Normally, the course should be completed during the first semester of enrollment, and must be completed within the first 9 SLIS credits. This 3 credit undergraduate-level course is a prerequisite for many courses in the SLIS curriculum, although it does not count toward the credit hours required for a SLIS graduate degree.

Probation Policy

In addition to the probationary admission described earlier, a SLIS student may be placed on probation at any point in the program when failure to achieve a minimum cumulative grade point average (GPA) of 3.0 occurs. The student will be assigned a time frame in which the required 3.0 GPA must be restored. Failure to achieve 3.0 within the required time or to maintain the 3.0 GPA for the remainder of the degree program will result in dismissal from the graduate

program. In no case is a master's degree awarded for course work in which a cumulative grade point average of less than 3.0 has been achieved. Students will not be permitted to continue graduate course work beyond the number of credit hours required for the degree solely in an attempt to raise the grade point average to the required level. Students are expected to maintain a 3.0 GPA each semester.

Time Requirements

All requirements for the M.L.S. degree must be met within five consecutive calendar years from the date of completion of the first credited course. In some circumstances a one-year extension of the five-year time frame may be given, but in no case will a longer extension be granted. Application for the SLIS master's degree must be submitted early in the fall semester for candidates planning to graduate in December, and early in the spring semester for candidates planning to graduate in May, June, or August.

Foreign Language

Although language skills are recognized as significant and in some cases essential in the information professions, and although such courses may be taken through the university, credit earned for such courses may not be applied toward the M.L.S. degree.

Course Requirements

Note: All course selections, both foundation and elective, must be made in consultation with the faculty advisor. The abbreviation "P" refers to the course prerequisite or prerequisites.

L401 or waiver (www.slis.iupui.edu)

Foundations (15 credit hours)

A candidate for the Master of Library Science degree must complete one course from each of the following areas:

Assist and Educate Users of Libraries and Information Centers

L524 Information Sources and Services

Develop and Manage Library Collections

L528 Collection Development and Management

Organize and Represent Information Resources

L505/L525 Organization and Representation of Knowledge and Information

L520 Bibliographic Access and Control

Apply Management and Leadership Skills

L527 Management of Libraries and Information Centers

L550 Issues in the Management of Library Services and Programs

- L553 The School Media Specialist
L587 Rare Book Libraries and Librarianship

Conduct and Analyze Research

- L509 Introduction to Research and Statistics (P: completion of 9 hours)
L643 Evaluation of Information Systems
L651 Evaluation of Library Sources and Services (P: L528)

M.L.S. Elective Courses In addition to the five courses (15 credit hours) taken from the foundations, students must select a minimum of 21 credit hours of elective courses to complete the 36 credit hours required for the M.L.S. degree. These electives must be chosen in consultation with the student's faculty advisor in order to best satisfy the student's academic and professional goals. Elective courses for the M.L.S. degree may be chosen from the foundations or the large pool of other SLIS courses available to all master's degree students.

M.L.S. Degree Requirements

A candidate for the Master of Library Science degree must complete 36 semester credit hours of graduate course work, all of which must be taken from the IU School of Library and Information Science. A maximum of 6 graduate credit hours from another ALA-accredited master's degree program may, with the permission of the dean, be applied to the M.L.S. degree. The transferred courses must have a grade of B or higher and must be taken within the five-year time frame allowed for completion of the degree. Only within recognized joint programs, as outlined in this bulletin, may other non-SLIS courses be applied toward the M.L.S. degree.

M.L.S./Specialization in Library Technology Management

M.L.S./L.T.M. Specialization (45 credit hours + L401)

Prerequisite:

- L401 Computer-Based Information Tools (3 credits)
or
Waiver (www.slis.indiana.edu/upriss/L401waiver.html)

Foundations (15 credit hours):
one course from each area

Assist and Educate Users of Libraries and Information Centers

- L524 Information Sources and Services

Develop and Manage Library Collections

- L528 Collection Development and Management

Organize and Represent Information Resources

- L505/L525 Organization and Representation of Knowledge and Information

Apply Management and Leadership Skills

- L527 Management of Libraries and Information Centers
L550 Issues in the Management of Library Services and Programs
L553 The School Media Specialist
L587 Rare Book Libraries and Librarianship

Conduct and Analyze Research

- L509 Introduction to Research and Statistics (P: completion of 9 hours)
L643 Evaluation of Information Systems
L651 Evaluation of Library Sources and Services (P: L528)

Specialization Core (9 credit hours)

- L520 Bibliographic Access and Control
L526 Library Automation
L570 Online Information Retrieval

Specialization Electives (15 credit hours)

Technology application courses selected from the following or chosen in consultation with the student's faculty advisor:

- L545 Systems Analysis and Design
L546 User-Centered Database Design
L552 Audio and Video Information Sources and Delivery
L571 Information Architecture for the Web
L576 Digital Libraries
L595 (SLIS workshops, up to 6 credit hours) as approved by adviser
L697 Advanced Topics in Information Systems

Outside Courses: up to 6 credit hours with advisor's approval

General Electives (6 credit hours)

selected from any SLIS elective courses; internship options for up to 6 credit hours are available

Dual Master's Degree Program: Master of Library Science–Master of Arts in History

Interest in public history, genealogy, historic preservation, and archives and museum administration creates a demand for professionals with expertise in both historical research and information management. The dual M.L.S.–M.A. in history program requires completion of a minimum of 50 credit hours of graduate course work. Students must apply for admission to the master's programs of both the School of Library and Information Science and the Department of History and meet the admission criteria established for each. The two degrees must be awarded simultaneously.

Requirements for the Master of Library Science degree are as follows:

1. Completion of SLIS courses from the common (9 credit hours minimum) and M.L.S.-specific (9 credit hours minimum) cores for a total of 18

credit hours. Explanations of the common and degree-specific cores are found in the previous section on degree requirements.

2. Other required SLIS courses (9 cr.): L586 (or History H547 [Archives]), L596, and L625.
3. SLIS elective courses to bring the total of SLIS credit hours completed to 30.
4. Elective courses in history (6 cr.). A minimum of 20 credit hours is required in the Department of History for the Master of Arts degree. For specific requirements, see the entry for the Department of History in the Indiana University Graduate School Bulletin.

School Library/Media and Information Technology Certification

Requires a Teaching License

The student must be admitted to the M.L.S. degree program in order to complete the course work leading to the minor or major in school library or media certification as a library media specialist in Indiana.

Emphasis in this area includes knowledge of a wide range of information sources and formats; selection and preparation of instructional plans and materials; promotion and use of quality literature for children and young adults; management of budgets, staff, and automated information services; collaborative teaching and cooperation with community information agencies; understanding of facilities planning; and instructional design for emerging technological innovations in education. Individuals specializing in this area are educators, information managers, and instructional designers.

Indiana library/media/technology certification transfers to other states in the United States. The student seeking certification in a state other than Indiana should contact the certification office in that state to be certain of meeting any additional teacher training requirements.

The student who has completed a bachelor's degree and meets the admission standards for the M.L.S. program, but who does not hold a teaching license, may pursue the requirements for the license in school media by completing education methods classes, student teaching in instructional media, and the courses required for the major in school media.

A student may enter a program leading to either the minor in school library services or the major in school media technology services after completion of a bachelor's degree and after meeting the requirements for an Indiana teaching license at either the elementary or secondary level. The bachelor's degree should include a minimum of 90 credit hours in liberal arts. At the secondary level, it is strongly recommended that the student have a teaching major in social studies, language arts, science, or computer

technology. Entry requirements for either certification program are the same as for those entering any master's-level SLIS program. A student must submit an application for a certification program before completing 6 credits in SLIS. Questions concerning course work leading to a valid teaching license in Indiana should be directed to:

School of Library and Information Science
IUPUI
University Library 1110C
755 W. Michigan Street
Indianapolis, IN 46202-5195
(317) 278-2376
callison@indiana.edu

The program leading to certification as a school library/media specialist at Indiana University is approved by NCATE, and the SLIS M.L.S. program is ALA accredited.

School Library Services Minor (24 credit hours)

Completion of this minor allows the graduate to hold a building-level position as a professional library media specialist. Course work leading to the minor may be obtained through the SLIS graduate program as follows:

Required course work:

L520, L524, L526, L528, L533, L553, L596 and *one* course from the following school library services minor electives:
L551, L552, L554, L557, L570, L571, L578 or any 3 graduate credits from SLIS seminars, readings, workshops, or special topics courses dealing with educational theory and technology use or information resources for children and young adults.

Completion of 24 credit hours as outlined above will allow the library services minor to be added to the standard teaching license in Indiana. The student may elect to stop graduate studies on completion of the 24 credit hour minor or may complete the M.L.S. degree by completing L527, L509, and 6 credit hours of SLIS electives approved by Dean Callison.

If the student holds a life license for teaching in Indiana, the minor in school library services can be added only after it has been professionalized by completion of 12 graduate credit hours beyond the minor. Of the total 36 credit hours, 12 must be in course work that emphasizes use or preparation of instructional technology or application and management of information technology related to public school education.

School Media Services Major (Emphasis in Information Technology) and the M.L.S.

Completion of this 36 credit hour major for school media information technology services to be added to the provisional teaching license also meets the requirements for the M.L.S. degree. Completion of this major enables the student to hold a position as a professional library media specialist with additional responsibilities in information technology and audiovisual services.

Required course work:

L509, L520, L524, L526, L527, L528, L533, L553, L596

and three courses from:

L551, L552, L554, L557, L570, L571, L578, or others approved by the Director of School Media Education.

The student who holds a life license for teaching in Indiana must professionalize this major before it can be added to the license. Professionalization requires completion of 12 additional graduate credit hours beyond the 36 described above, and these additional credits should be in educational technology, instructional theory, selection and use of instructional resources, and information technology. Any of these additional 12 credit hours may come from graduate programs outside SLIS.

The student should consult with the director for library media education in order to determine approval of these additional courses.

Courses Open to Undergraduates

The following courses may, with permission, be taken in the junior or senior year with a view toward school library certification: L533 Library Materials for Children and Young Adults and L551 Information Inquiry for School Teachers.

If such course work is taken as an undergraduate, the credit may count as an elective in the student's undergraduate work. Since all course work for either the minor in library services or the major in media services must be taken as a graduate student, an undergraduate who has completed either or both courses listed with a grade of B or better may, on consultation with the graduate advisor, substitute other graduate-level course work from SLIS in meeting the certification and/or M.L.S. degree requirements.

Public Library Certification Requirements

Courses are available through SLIS IUPUI Distance Education: www.slis.iupui.edu/courses/distance.html

Students who desire certification for positions in Indiana public libraries must meet the requirements established by the State Library Certification Board. For complete information, contact

Indiana Library Certification Board
Indiana State Library
140 N. Senate
Indianapolis, IN 46204
1-800-451-6028

The board lists two kinds of education in determining the grade of certificate granted:

Accredited library education is described as completion of graduate study in an accredited program and validated by a diploma. This level relates to the higher grades of certification: Librarian I, II, or III. Librarian I and II levels have experience as well as educational components. Librarian III is the minimum grade for heads of libraries serving populations of

10,001 to 25,000 and for comparable positions as determined by the library certification board. The Master of Library Science degree from Indiana University meets this requirement.

Approved library education is defined as elementary instruction in library science taken after completion of a prescribed period of undergraduate education. Approved library education requires specified amounts of study in library science and relates to the lower grades of Indiana library certificates. Two levels of approved education are recognized:

- Intermediate library education requires a bachelor's degree and at least 15 credit hours of library science courses. This meets the requirements for Librarian IV, which is the minimum grade for heads of libraries serving populations of 5,001 to 10,000 and for comparable positions as determined by the library certification board. The following courses at Indiana University meet the intermediate library education requirement for Librarian IV: L520, L524, L527, L528, L533.
- Minimum library education requires at least two years of undergraduate education and at least 9 credit hours of library science courses. This meets the Librarian V level, which is the minimum grade for heads of libraries serving populations of 5,000 or fewer and for comparable positions as required by the library certification board. The following courses at Indiana University meet the minimum library education requirement for Librarian V: L524, L527, L528.

Students wishing to meet Indiana public library certification requirements must meet all requirements for and be admitted to the M.L.S. degree program.

General Information

Grade Computation

Instructors in the School of Library and Information Science use a grading system that includes plus and minus grades as well as straight letters. Numerical equivalents for these grades are as follows: A+ or A = 4.0; A- = 3.7; B+ = 3.3; B = 3.0; B- = 2.7; C+ = 2.3; C = 2.0; C- = 1.7; D+ = 1.3; D = 1.0; D- = 0.7; F = 0.0.

Letter grades have been defined as follows by student and faculty members of the Curriculum Steering Committee and have been approved by the faculty as an aid in evaluation of academic performance and to assist students by giving them an understanding of the grading standards of the School of Library and Information Science.

- A (4.0) Outstanding achievement. Student performance demonstrates full command of the course materials and evinces a high level of originality and/or creativity that far surpasses course expectations. The grade of A+ is not granted in SLIS, except in very exceptional cases.
- A- (3.7) Excellent achievement. Student performance demonstrates thorough knowledge of the course materials and exceeds course expectations by completing all requirements in a superior manner.

- B+ (3.3) Very good work. Student performance demonstrates above-average comprehension of the course materials and exceeds course expectations on all tasks as defined in the course syllabus.
- B (3.0) Good work. Student performance meets designated course expectations, demonstrates understanding of the course materials, and performs at an acceptable level.
- B- (2.7) Marginal work. Student performance demonstrates incomplete understanding of course materials.
- C+ (2.3) Unsatisfactory work and inadequate understanding of course materials.
- C (2.0) Unacceptable work; course work performed at this level will not count toward the M.L.S. degree; for the course to count toward the degree, the student must repeat the course with a passing grade.
- C- (1.7) Failing. Student may continue in program only with permission of the dean.
- D+ (1.3)
- D (1.0)
- D- (0.7)
- F (0.0)

Grades are assigned by individual instructors based on a combination of student performance measures developed for each course. Student achievement of course objectives is usually assessed through the use of multiple performance measures. For example, a combination of several of the following assessment methods is common: examinations, class participation, written assignments and exercises, research papers, or term projects. Other methods, depending on course content and objectives, may include in-class small group exercises, oral presentations, field-based projects and field experiences, role-playing, or case study presentations.

No course on which a student receives a grade of lower than C (2.0) will be counted toward requirements for any SLIS degree. Any required course on which a grade lower than C is received must be repeated; an elective course on which an unacceptable grade is earned need not be repeated, but it may be repeated or another course must be taken in its place. Repeating an unacceptable course or taking another in its place does not remove the credit points for that course from a student's grade point average. All grades achieved in SLIS courses will be counted in the SLIS and IU GPA. Since a minimum GPA of 3.0 (B) is required for graduation, any grade below B must be balanced by another sufficiently above B to keep the GPA at the 3.0 level.

Grade of Incomplete (I)

The grade of Incomplete (I) may be used on the final grade report at the discretion of the instructor. The grade I indicates that the student's work in a course is satisfactory thus far but has not been completed as of the end of the semester.

The grade of Incomplete may be given only when the completed portion of a student's work in a course is of passing quality, and may be awarded only upon showing hardship to the student that would make it unjust to hold the student to the original time limit for course completion. It is the responsibility of the student who has incurred a grade of Incomplete in

any course to fulfill the requirements of that course within a maximum of one calendar year from the date on which the I grade is recorded. After one calendar year, a grade of Incomplete automatically changes to a grade of F on the student's record.

Deferred Grade (R)

Certain doctoral-level courses, such as L799 and G901, in which candidates enroll while working on their dissertations, are expected to take longer than one year. In these instances, an R, indicating that the grade has been deferred, will be assigned until such time as the dissertation is completed.

Computer Accounts

All SLIS students are eligible for and required to obtain computer accounts from University Information Technology Services immediately upon matriculation. These accounts include an electronic mail component, which is utilized by SLIS for both official and nonofficial communication. Student job openings, scholarship and financial aid opportunities, deadlines for submission of official paperwork, and announcements of social functions are just a few examples of the information disseminated via electronic communication. Students will be held responsible for receiving and responding as appropriate to all official electronic mail.

Placement

The range of placement services available from the School of Library and Information Science includes instruction on resume and cover letter writing and on interviewing strategies, both on an individual basis and through group presentations. In addition, all position announcements received are posted daily, and a monthly placement bulletin is available. This bulletin is available upon request and free of charge to SLIS alumni during the year following their graduation. All others may supply stamped, self-addressed business envelopes, one for each month, to have the bulletin mailed to them. An online version of the placement bulletin is available at www.slis.indiana.edu

SLIS does not maintain placement files on individual alumni; however, the School of Education makes the services of its placement office available to SLIS graduates wishing to establish such a file.

SLIS Alumni Association

The School of Library and Information Science Alumni Association has as its purpose the furthering of educational, professional, and social interests of the school and its alumni. The association publishes a semiannual newsletter to keep alumni informed about developments within the school and news of each other. In addition, the SLIS Alumni Association sponsors two events annually, one in May and one in December, to honor SLIS graduates. The Alumni Association, in cooperation with the school, also sponsors a minimum of two receptions per year at annual conferences of state and national professional organizations.

Summer Sessions

The School of Library and Information Science offers one of the largest selections of summer classes proportional to school enrollment. The two summer sessions are a seven-week session from early May to mid-June and a seven-week session from mid-June to mid-August. It is possible for some students to complete a SLIS master's degree by attending only summer sessions over the period of five years allowed for degree completion. Students are cautioned, however, that not all courses are or will be available during summer sessions. For additional information, consult the *Schedule of Classes* and the schedules of SLIS courses that are available from the school.

Financial Aid

Any applicant who fills out the application for SLIS financial aid, which is part of the SLIS master's and specialist applications, will be considered for all financial aid awards listed below. A student must be admitted to a graduate degree program in order to be eligible for financial aid from SLIS. Students with financial assistance must make adequate progress toward their degree each semester and meet all other requirements of the award, or financial support may be discontinued. Stipends and salaries earned by graduate students are taxable. It is our understanding that fellowships and fee scholarships are not taxable under current regulations; however, it is the responsibility of each recipient to confirm the tax status of any award with the Internal Revenue Service.

Financial Aid on the IUPUI Campus Graduate assistantships that include tuition remission and employment in the University Library are available to SLIS students attending classes on the Indianapolis (IUPUI) campus. For information about eligibility requirements and application procedures, please contact

School of Library and Information Science Office
University Library 1110C
755 W. Michigan Street
Indianapolis, IN 46202-5195
(317) 278-2375

Fellowship Awards The school also offers some one-time cash fellowship awards to new and continuing students in the SLIS degree programs. Some of these are the following:

The InULA Scholarship of \$1,000 is awarded annually by the Indiana University Librarians Association to a full or part-time student currently enrolled in a School of Library and Information Science master's degree program. Students must complete an application form (obtainable from SLIS) and a statement of professional philosophy and goals, and arrange to have at least one letter of reference sent directly to the current InULA president as listed on the application each year. InULA reserves the right to publish the winning statement in its newsletter. Deadline for submission is March 1.

The Evelyn Ray Sickels Award of \$250 is made each spring to an M.L.S. candidate who demonstrates exceptional potential in the field of youth librarianship. SLIS students graduating the December preceding or the May, June, or August of the award year are eligible to apply. The award requires

submission of an application form, a 300-500 word statement of the individual's philosophy and goals in youth librarianship, and two letters of reference. Deadline for submission is March 15.

Indiana Library Federation Scholarships are awarded annually by the ILF to students who are Indiana residents, have economic need, and are studying or wish to study for a career in librarianship. Awards are made each spring, and recipients must agree to work in an Indiana library for one year following degree receipt. Details for application are publicized each spring by SLIS and the federation.

Association for Indiana Media Educators Scholarship are offered to students planning a career in Indiana school libraries and media centers. Application details are published by the association and SLIS when they become available.

Other financial aid opportunities are publicized by the school as they become available. This information is available primarily on the SLIS-INDY electronic mailing list.

Student loans and other financial aid opportunities are available to graduate students at IUPUI through the:

Office of Student Financial Aid Services
IUPUI
Cavanaugh Hall 103
425 N. University Blvd
Indianapolis, IN 46202-5145
(317) 274-4162
finaid5@iupui.edu

International student aid from the School of Library and Information Science is very limited. Aid available from the school for beginning students is normally restricted to U.S. citizens and permanent residents. In some cases a continuing international student will receive financial assistance following the first semester in SLIS, but in no case does the available aid approach the entire amount needed for the support of an international student attending a graduate degree program at Indiana University. International students are advised not to count on any financial assistance from the school, but to seek sponsorship and support from other sources. The university will not issue visa documentation until the international student submits evidence of complete financial support. Information on other financial aid for international students may be obtained from

Office of International Affairs
IUPUI
Union Building 207
620 Union Drive
Indianapolis, IN 46202-5167
(317) 274-7294
intlaff@iupui.edu

Courses

Note: The abbreviation "P" refers to the course prerequisite or prerequisites. Undergraduate courses are marked by the sign *. Undergraduate students will be admitted only to the 100-level courses.

Undergraduates wishing to enroll in higher-level SLIS courses must receive written permission from the school prior to registering for the course.

L140* Information Resources and Student Research (1 cr.) Concepts of information, research processes, and techniques and skills for using information resources are examined. Resources explained include traditional print sources as well as those based on new technologies, such as computer databases and multimedia applications. Similar to L161 but has been designed for IUPUI students and programs incorporating technology and off-campus learning.

L401* Computer-Based Information Tools (3 cr.) Graded S/F. This skills-based course introduces basic applications that will be used throughout the student's course work and beyond. Students' experiences in this course should be seen as a basis for further skill development and learning throughout their careers. The course covers computing platforms, access tools, and management tools. Demonstration of skills will be by a mastery test or an assignment in each unit of the course. L401 does not count toward graduate degree requirements.

L501 Information and Society (3 cr.) Introduces issues related to information in society, as well as concepts, methods, and techniques of information science. Major units include the study of human communication, the information environment, uses and users of information, information systems in libraries, and the information professions.

L503 User Needs and Behavior in Theory and Practice (3 cr.) This course introduces students to the concepts of information analysis from a human perspective, focusing particularly on the theoretical models and practical techniques that underpin the field. Sociological and psychological perspectives will be examined in order to develop an approach to the assessment of users' information needs.

L505 Organization and Representation of Knowledge and Information (3 cr.) Introduces students to various disciplines' approaches to the understanding, organization, representation (summarizing), and use of knowledge and information. This survey looks for commonality among the approaches taken in information science, cognitive psychology, semiotics, and artificial intelligence, among others. The goal is to identify criteria for evaluation and improvement of ways to organize and represent information for future retrieval. Information systems currently used in libraries and information centers will be studied as examples. Emphasis in the course is on concepts and ideas, with appropriate attention to terminology and technology.

L509 Introduction to Research and Statistics (3 cr.) P: L401, completion of 9 credit hours in SLIS, or consent of instructor. The research process, including concepts, design, conduct, and evaluation. Principles and characteristics of approaches and methodologies relevant to research in the field. Examples of data sources and introduction to methods of statistical description and analysis; ethical issues.

L514 Preservation of Library and Information Resources (3cr.) Examines causes of library and archival materials deterioration. Develops conceptual framework and management perspective for preservation programs using technical standards, program development tools, scientific and administrative research reports, and advocacy literature. Explores the new information technologies and media as both preservation tools and challenges.

L515 History of the Book (3 cr.) Survey of the functions and history of writing and the various methods and styles of bookmaking from earliest times through the nineteenth century.

L516 Introduction to Archives and Records Management (3 cr.) Introduces basic theories, methods, and significant problems in archives and records management. The course also discusses how archivists are responding to the challenge of managing and preserving electronic records.

L517 History of Libraries (3 cr.) Development of libraries and information service from earliest times to the present, with emphasis on the library in relation to social, economic, cultural, and political trends.

L520 Bibliographic Access and Control (3 cr.) P: L401. Historical development and principles essential to the understanding of the conceptual foundations of providing bibliographic access and control of materials and information. Discussion and examples in the application of AACR2r will be presented to illustrate and reflect current practice. Emphasis is on monographic publications.

L522 Perspectives on Librarianship, Literacy, Communications, and Reading (3 cr.) Overview of the library as a social institution—historically, currently, and for the future—within social, economic, political, and cultural contexts. Focuses on the institution, the collections and formats, and the users, to create an understanding of the role and importance of libraries.

L524 Information Sources and Services (3 cr.) P or concurrent: L401. This course introduces students to the basic information sources and services among different types of libraries and information centers, including academic, public, special, and school media.

L526 Library Automation (3 cr.) P or concurrent: L401. Principles for the design, selection, implementation, and management of automated systems of all types in libraries, including systems for technical services processing, reference and user services, and management. Focus is on present and future applications of technology in libraries, their technical features, and their implications for library

services and management. When possible, some practical experience with a particular application will be provided.

L527 Management of Libraries and Information Centers (3 cr.) Management and administration of all types of libraries. Covers basics of organizational structure, planning, budget management, human resources issues and skills, and an understanding of the manager in the context of the organization.

L528 Collection Development and Management (3 cr.) Theoretical and pragmatic aspects of the selection, evaluation, and management of collections in all types of libraries. Acquisitions, publishers and publishing, policy making, and intellectual freedom and censorship are also covered.

L530 Legal Bibliography and Law Library Administration (3 cr.) P: L524 or consent of instructor. An introduction to basic legal materials and law librarianship. Primary and secondary resources; indexes; digests and citators; specialized research methods; current developments in automated legal research. History of law libraries in the United States, their organization and administration. The role of law librarians in law schools and law firms.

L533 Library Materials for Children and Young Adults (3 cr.) Evaluation and use of books, magazines, recordings, films, radio and television broadcasts, and other sources of information and recreation.

L534 Principles and Techniques of Storytelling (3 cr.) P or concurrent: L533 or consent of instructor. The history, philosophy, and value of storytelling. Guidance in techniques of this oral art form and its adaptation to special needs and programs.

L535 Library Services for Children and Young Adults (3 cr.) P or concurrent: L533 or consent of instructor. This course emphasizes the history, philosophy, and description of children and young adult library services. It takes a holistic look at the role of the youth services librarian, from planning and evaluation to specific services and programs, and examines the current and future outlook for this type of librarianship. Emphasis is on the public library, but cooperation with appropriate services and programs such as school media centers is also discussed.

L542 Introduction to Human-Computer Interaction (3 cr.) Examines the human factors associated with information technology and seeks to provide students with knowledge of the variables likely to influence the perceived usability, and hence the acceptability, of any information technology. In so doing it will enable students to progress further towards specialist work in the important field of human-computer interaction.

L543 Strategic Intelligence (3 cr.) Introduces different concepts of strategic intelligence and different contexts in which these are applied; the idea of intelligence is not restricted to national security, or corporate competition: it can apply at the level of the individual citizen, company, community, or country.

L544 Information Technology Standardization (3 cr.) P: L401. This course presents students with an opportunity to learn about specific information technology standards of interest to information professionals. Additionally, students will learn about various standardization activities and their impact in organizational settings.

L545 Systems Analysis and Design (3 cr.) P: Computer literacy or consent of instructor. Using a behavioral approach to information systems, this course covers information systems designed to conform to the needs of users.

L546 User-Centered Database Design (3 cr.) P: L401 or consent of instructor. Concerned with a comprehensive view of the processes involved in developing formal access to information from a user-centered point of view. Considers various database models (such as flat file, hierarchical, relational) and hypertext (in terms of text, sound, numeric, image, and geographic data). Students will design and implement databases using several commercial database management systems.

L547 The Organizational Information Resource (3 cr.) This course introduces some of the models and methodologies that have been proposed to help managers exploit the information resource. Topics include historical overview, structure and content of the organizational information resource, and resource modeling.

L548 Computer Programming for Information Management (3 cr.) P: L401 or consent of instructor. Introduces basic skills for programming and manipulation of data structures for bibliographic and full-text information systems.

L550 Issues in the Management of Library Services and Programs P: L527. A special topics course providing in-depth study of management and service issues relevant to a specific type of library or information environment. May utilize a seminar format. Specific topics announced in *Schedule of Classes*. May be repeated for credit when topic varies.

L551 Information Inquiry for School Teachers (3 cr.) This course is intended to be an opportunity for teachers and future teachers (including school library media specialists as teachers) to practice methods in critically thinking about information/media, and to use that process as a means to teach their students to be critical reviewers and communicators.

L552 Audio and Video Information Sources and Delivery (3 cr.) P or concurrent: L503 or L546 or consent of instructor. Students will become acquainted with community radio and television services, especially public access communications through public and academic libraries, as well as public information networks such as BITNET and the Internet, and cable or distance-education television services. Students will have hands-on experience in the production of oral history and community video programming. Students will also become aware of how multimedia and other audiovisual materials are selected, organized, and maintained in library collections.

L553 The School Media Specialist (3 cr.) P or concurrent: L524, L528 and L533, or consent of instructor. Establishes the professional teaching and administrative role of the certified school library media specialist in K–12 settings. Situations are examined that pertain specifically to policy development, budgeting, collection development, instructional design, support staff training, facility design, district supervision, and information networking within the modern school corporation. Students make site visits to leading school information centers, conferences, and media fairs.

L554 Bibliographic Instruction (3 cr.) P or concurrent: L524 or L542, or consent of instructor. This is a hands-on course in which the student will have the opportunity to practice and evaluate methods in design and presentation of various approaches to bibliographic instruction including library skills and orientation, user education, discipline-specific instruction, and information literacy. Students will be expected to research and debate information literacy theory, and to make several extensive oral presentations, which will be subject to critical review.

L559 Introduction to Health Sciences Librarianship (3 cr.) P or concurrent: L520, L524. Health sciences library administration, materials organization, and information services. Emphasis on National Library of Medicine classification, subject headings, printed indexes, and online databases.

L561 The Information Industry (1–3 cr.) This course examines various aspects of the information industry: products, producers, suppliers, trends, and market opportunities. Focus varies with the topic; for example, structural market characteristics, or technical developments and their impact. May be repeated for credit when topic varies.

L562 Information Accounting (3 cr.) P: L507. This course evaluates a variety of approaches to assessing the costs and benefits of information investments. The aim is to provide students with a range of information accounting techniques and impact assessment methodologies to help them better understand the true costs and value of information.

L563 Information Policies, Economics, and the Law (1–3 cr.) Data creation, publication, dissemination, and use occur in a complex social context. Legal and regulatory structures continue to evolve to control these processes. This course explores international and U.S. principles, laws, and regulations affecting the information industry. Focus varies with the topic; for example, copyright of electronic information sources or transborder data flow. May be repeated for credit when topic varies.

L564 Computerization in Society (3 cr.) Surveys social consequences of computerization when it is shaped and used by business, public agencies, and individuals.

L570 Online Information Retrieval (3 cr.) P: L401 or consent of instructor. Principles, methods, and techniques of advanced online information retrieval (IR). Characteristics of and search strategies for the use of bibliographic, referral, citation, fact, numeric, and full text databases and search systems.

Considers standards, use of communications software, front-ends and micro-based IR systems, and creation of in-house databases.

L571 Information Architecture for the Web (3 cr.) P: L401. This course focuses on technologies for connecting computers for communication/telecommunication. A discussion of the differences between digital and analog transmission is used to introduce the concept of computer networks. Network components and designs are compared in terms of performance, reliability, and cost. Communication protocols and network connectivity are presented in the light of current standards. Network management is discussed in relation to technical and economic strengths and security needs.

L574 Communication in Electronic Environments (3 cr.) Examines conceptual perspectives on information in organizations, covering topics such as types of information, information activities, organizational culture and information technology, communication as information flow, obtaining and using information from the environment, managing information in specialized extended communities, and ethical and quality issues. Focus varies by type of community studied. May be repeated for credit when the topic varies.

L576 Digital Libraries (3 cr.) P: L571 or equivalent and consent of instructor. This course introduces digital libraries—networked information servers that provide access to multimedia data for local and remote users. Primary emphasis is on developing digital libraries, based on understanding tools for presentation and manipulation of multimedia as well as analysis of user needs.

L577 Design of Information Systems (3 cr.) P: L575. Students identify, design, and implement a significant information design project, such as acquisitions, organization, or search and retrieval for an online public access system.

L578 User Interface Design for Information Systems (3 cr.) P: L548 or consent of instructor. This course focuses on established principles and methods to design effective interfaces for information systems, emphasizing document retrieval, filtering, visualization, correlation, analysis, and research.

L582 Subject Access Systems (3 cr.) P: L505. Principles, development, characteristics, and internal structures of subject access systems. Evaluation of the strengths and weaknesses of the major classification schemes and current subject heading systems.

L583 Indexing Theory and Practice (3 cr.) P: L505 or consent of instructor. Theoretical concepts of subject indexing and thesaurus construction for information retrieval. Examines alternative approaches to traditional indexing techniques. Evaluation and use of appropriate computer software.

L584 Technical Services (3 cr.) P: L507 or consent of instructor. Principles of organization and function of library technical services, including acquisition, cataloging, serials, circulation. Special emphasis on research and development in library systems and

technology. Includes file organization, documentation system development, analysis, and evaluation for manual, mechanical, and automated applications.

L585 Descriptive Bibliography (3 cr.) P: consent of instructor. The development of the practice of printing, type founding, and papermaking; the principles and practice of the bibliographical description of printed books, with emphasis on the period to 1880.

L586 Administration of Manuscripts and Personal Papers Collections (3 cr.) P: consent of instructor. Introduction to the nature, functions, and methodology of the administration of archives and manuscript collections. The course will consist of lectures, discussions, field trips, and special projects.

L587 Rare Book Libraries and Librarianship (3 cr.) P: consent of instructor. Introduction to the development, organization, and operation of rare book libraries and special collections. Includes an overview of the fundamentals of book collecting (both private and institutional), the antiquarian book trade and auction market, and the profession and practice of rare book librarianship.

L592 Bibliometric Techniques and Problems (3 cr.) Focuses on bibliometric techniques and the research problems that they are used to address; introduces the principal bibliometric techniques used in library and information science research, with particular emphasis on their role in the study of scholarly communication.

L594 Research in Library and Information Science (1–4 cr.) P: L509 and consent of instructor. Individual research in a problem in the field of library and information science.

L595 Workshop for Librarians and Information Professionals (cr. arr.) P: consent of instructor. Group study of specific problems in the library and information field. Generally includes a hands-on element. No more than 6 credit hours of L595 credit may be used toward the requirements for any SLIS degree.

L596 Internship in Library and Information Science (2–6 cr.) P: permission of faculty advisor. Graded S/E. Supervised internship in an information management environment. Professionals in library and information management mentor each graduate student. Forty on-site hours must be completed for each credit earned. Students should plan through their advisor the course work leading to an internship. Normally, at least 21 credits must be completed before enrollment.

L597 Topics in Library and Information Science (cr. arr.) P: consent of instructor. Study of specific topics in librarianship and information science. May be repeated for credit when topic varies.

L600 Readings in Library and Information Science (1–4 cr.) P: consent of instructor. Readings and study in any area of library or information science having an extensive literature. A student may enroll for this course twice in the same semester under different instructors. Normally L600 is completed under the direction of a full-time faculty member. Readings done

under L600 shall not duplicate the content of any course now in the curriculum of the School of Library and Information Science.

L605 Seminar in Education for Librarianship and Information Science (3 cr.) P: consent of instructor. An overview of the history, purpose, and methods in education for librarianship and information science. American and international systems will be covered, as well as standard accreditation requirements for higher education programs. Students will be evaluated on their demonstration of lecture delivery, group discussion management, analysis of a mentor teacher, and presentation of instruction through distance education.

L608 Seminar in Intellectual Freedom (3 cr.) P: 9 credit hours of SLIS graduate credit or permission of instructor. Beginning with a history of and alternative philosophical justifications for censorship, the student is introduced to constraints, obligations, and problems relating to intellectual freedom.

L610 International Information Issues (3 cr.) Comparisons of philosophy and practice of librarianship in selected countries; international library organizations; current world trends.

L620 Topics in Information, Literature, and Bibliography (3 cr.) The purpose of this course is to provide the opportunity for greater in-depth study of the information and literature sources related to area studies, specific academic disciplines, and/or specific library patron audiences. Examples include Slavic materials, Latin American bibliography, and international legal bibliography. Depending on the potential market, the demand for knowledge concerning the specific information, literature, and material, and the expertise of available faculty, there is a wide range of possible topics.

L622 Library Materials for Adults (3 cr.) P: L524, L528. A review and discussion of trends reflected in subject content and use of book and nonbook materials for patrons in secondary school and public libraries, in relation to changing young adult and adult needs and the role of libraries in meeting such needs.

L623 Information in the Humanities (3 cr.) P: L524 or consent of instructor. Introduction to information sources and services in the disciplines of performing arts, music, fine arts, literature, language, philosophy, and religion. In addition, the course addresses information needs and behavior patterns of users seeking these types of information.

L624 Information in Science and Technology (3 cr.) P or concurrent: L401, L524. General materials, reference books, periodicals, government documents, and nonbook media in the individual literature of individual disciplines; patents and report literature. Examination of production, publication, distribution, and forms of scientific and technical literature.

L625 Information in the Social Sciences (3 cr.) P: L401, L524, or consent of instructor. Study of the core information tools in the fields of anthropology,

economics, history, political science, psychology, and sociology. Includes key bibliographic databases and electronic network tools. Evaluation of research dealing with information channels in these fields.

L628 Government Information: Collection, Organization, Dissemination (3 cr.) P: L401, L524. Survey of government information dissemination in all formats and at all levels of government. Consideration of government information policy. Primary emphasis given to U.S. government information, but with some consideration given to state and local publications in the United States, and those of international organizations.

L629 Business Information Sources (3 cr.) P: L401, L524, or consent of instructor. Introduction to basic business materials. Includes resources, research methods, current developments, automated systems, and databases.

L630 Seminar in Art Librarianship (3 cr.) P: A575 (School of Fine Arts) or consent of instructor. Academic art library administration, collection development, reference services, technical services operations, facilities, and slide and photograph/picture collections will be emphasized.

L631 Seminar in Music Librarianship (3 cr.) P: M539 (School of Music). Academic music library administration, collection development, technical services operations, record and performing ensemble collections, and reference services will be emphasized.

L633 Seminar on Issues and Trends in Children's or Young Adult Literature (3 cr.) P: L533 or consent of instructor. An advanced seminar, addressing such topics as images of minority groups, societal problems (e.g., poverty and family patterns), or informational needs and materials (including access and availability of print, nonprint, and computer resources). May be repeated for credit when topic varies.

L641 Information Storage and Retrieval Theory (3 cr.) P: L401, L503, L505, L509. Traditional experimental design, cognitive, and naturalistic approaches to studying the fundamental concepts of information retrieval (IR). Anomalous states of knowledge, relevance, information need, search behavior, and process. Study of IR subsystems; system interface; query formulation, matching, and relevance feedback algorithms, subject indexing, and evaluation.

L642 Information Usage and the Cognitive Artifact (3 cr.) P: L542. Examines the process of information usage, with particular emphasis on reading and writing, to determine the best role for information technology in supporting such human activities with cognitive artifacts.

L643 Evaluation of Information Systems (3 cr.) P: L401. Theoretical and practical exploration of the issues surrounding contemporary information systems. A specific focus will be on evaluating information systems from the user's perspective. This evaluation approach will cut across disciplinary frameworks: behavioral, cognitive, and social sciences. The approach will also touch on multiple research methods: online surveys, sense-making, critical incident, and network analysis.

L651 Evaluation of Library Sources and Services (3 cr.) P: L528. Examines the applied evaluation of library resources and services, including collections, document delivery, technical services, reference services, and overall library performance. Emphasis is placed on the available methods and methodological issues. The checklist method, availability studies, document delivery tests, use studies, applied bibliometrics, and the use of automation are covered.

L697 Advanced Topics in Information Systems (1–4 cr.) This course is a special topics seminar, focusing on a new development or application of technology related to information systems. The intention is to provide a rapid response to current trends, with topic and content changing with each offering. Examples of topics that might be offered include: hypermedia, artificial intelligence, expert systems, parallel processing, virtual reality, or some special aspect of one of these technology trends and their implications for information system development and use. May be repeated for credit when topic varies.

School of Library and Information Science Administrative Officers

Indianapolis

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MELANIE COLE, *Administrative Coordinator* (meacole@iupui.edu)

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BLAISE CRONIN, Ph.D., *Dean and Professor*

DEBORA SHAW, Ph.D., *Associate Dean and Associate Professor*

Faculty

Borner, Katy, Ph.D. (*University of Kaiserslautern, 1997*), *Assistant Professor*

Callison, Daniel J., Ed.D., (*Indiana University, Instructional Systems Technology, 1983*), *Professor and Executive Associate Dean*

Crawford, Holly, Ph.D. (*University of Illinois, 1997*), *Assistant Professor*

Crews, Kenneth D., Ph.D. (*University of California, Los Angeles, 1990*), J.D. (*Washington University, 1980*), *Professor*

Cronin, Blaise, Ph.D. (*The Queen's University of Belfast, 1983*), D. Litt. (Hon.) (*Queen Margaret College, Edinburgh, 1997*), *Professor and Dean*

Dillon, Andrew P., Ph.D. (*Loughborough University of Technology, 1991*), *Associate Professor*

Herring, Susan C., Ph.D. (*University of California, Berkeley, 1991*), *Associate Professor*

Jacob, Elin K., Ph.D. (*University of North Carolina, Chapel Hill, 1994*), *Associate Professor*

Kling, Rob, Ph.D. (*Stanford University, 1971*), D.Sc. (Hon.) (*Free University of Brussels, 1987*), *Professor*

Mostafa, Javed, Ph.D. (*University of Texas-Austin, 1994*), *Associate Professor*

Nisonger, Thomas E., Ph.D. (*Columbia University, 1976*), *Associate Professor*

Paolillo, John C., Ph.D. (*Stanford University, 1992*), *Associate Professor*

Priss, Uta, Ph.D. (*Darmstadt University, 1997*), *Assistant Professor*

Pungitore, Verna L., Ph.D. (*University of Pittsburgh, 1983*), *Associate Professor*

Robbin, Alice R., Ph.D. (*University of Wisconsin, 1983*), *Associate Professor*

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Shaw, Debora, Ph.D. (*Indiana University, 1983*), *Associate Professor and Associate Dean*

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INDIANA UNIVERSITY SCHOOL OF MEDICINE



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Contents

369 Indiana University School of Medicine

Indiana University School of Medicine

The School of Medicine is responsible for providing medical education within the state of Indiana. As part of a major university, it accepts and fulfills five crucial responsibilities: (1) It provides its students with the opportunity to acquire a sound basic education in medicine and fosters the development of lifelong habits of scholarship and service; (2) It advances knowledge through research in biomedical studies and studies related to the cultural and behavioral aspects of medicine and the delivery of health care; (3) It provides graduate education in order to produce practitioners, teachers, and investigators through clinical residency programs and advanced degree programs in the basic medical sciences; (4) It offers continuing education programs aimed at maintaining and improving the competence of those professionals engaged in patient care; and (5) It provides multiple services to the people of Indiana in all areas of the medical sciences and health care.

The Indiana University School of Medicine was founded in 1903 and its first students were enrolled on the Bloomington campus. It was the fourth medical school in the United States, after Johns Hopkins, Harvard, and Western Reserve, to require two or more years of collegiate work for admission. The school awarded the Doctor of Medicine (M.D.) degree to its first class of 25 in 1907. Following the union of all medical schools in the state within Indiana University in 1908, the General Assembly of the State of Indiana, in 1909, mandated that Indiana University assume the responsibility for medical education in the state. Initially, students had the opportunity of taking the first two years of their medical school work at either Bloomington or Indianapolis. In 1912 all students entered through the Bloomington program and moved to Indianapolis for their second-, third-, and fourth-year courses. This remained in effect until 1958, when the work of the Bloomington division was transferred to Indianapolis. Excellent facilities for the teaching of the basic medical sciences and a strong nucleus of basic science faculty remained in Bloomington. Consequently, in 1959 an experimental program of medical education was started in Bloomington in cooperation with the College of Arts and Sciences and the Graduate School. This program, the Medical Sciences Program, included studies that could lead to the combined M.D./M.S. and M.D./Ph.D. degrees. The school also awards a Master of Public Health degree.

In 1965 a School of Medicine faculty committee recommended the adoption of a comprehensive plan for medical education throughout the state of Indiana. The plan involved the use of regional facilities in addition to those of the Medical Center in Indianapolis. The plan would coordinate and utilize elective programs in community hospitals, preceptorships with practicing physicians, internship and residency programs, and continuing medical education programs throughout the state.

The plan also resulted in the formation, within existing educational institutions, of "centers for medical education" for teaching basic medical science courses to first-year medical students. In 1971 the General Assembly of the State of Indiana unanimously authorized legislation establishing the Indiana Statewide Medical Education System. This legislation mandated that the Indiana University School of Medicine be responsible for selection, admission, and assignment of students, for curricular development, and for evaluation and accreditation of the system. Further development of the Indiana Statewide Medical Education System was approved in the 1979 Indiana General Assembly. Approval for planning and funding for a second year of medical study at each of the centers for medical education was passed, and second-year students were first appointed to all centers except Fort Wayne in the fall 1980 semester. Funding for second-year students at the Fort Wayne campus began in fall 1990. The School of Medicine currently has eight centers for medical education, located in Bloomington, Evansville, Fort Wayne, Gary, Muncie, South Bend, Terre Haute, and West Lafayette.

The Indiana University Medical Center campus covers some 85 acres within one mile of the center of Indianapolis. Half of the first- and second-year classes are on the IUMC campus; the other half are at the centers for medical education. The School of Medicine's enrollment in 2000–2001 consisted of nearly 1,100 M.D. students, 143 Ph.D. students, 115 M.S. students, and 38 M.D./Ph.D. students. In addition to opportunities at the centers for medical education, M.D. students may participate in clinical and elective rotations in physician offices and hospitals throughout the state and nation. Students may study or serve abroad during their medical school careers.

The IUMC campus includes Fesler Hall, Van Nuys Medical Sciences Building, Indiana Cancer Pavilion, IU Cancer Research Institute, the Rotary Building, and Emerson Hall. The William H. Coleman Hospital, Robert W. Long Hospital, and the Willis D. Gatch Clinical Building have been renovated to provide research and administrative offices at IUSM. The construction of a new research building began in the 2000–2001 academic year, and yet another was planned.

Hospitals that are staffed by faculty and provide residency training programs include: Wishard Memorial Hospital (a city-county hospital recently listed among the top 100 U.S. public hospitals), Roudebush VA Medical Center, Riley Hospital for Children, Indiana University Hospital and Outpatient Center, and LaRue Carter Psychiatric Hospital (state owned—about five minutes from campus). Riley and IU hospital separated from the School of Medicine in 1997 to join Methodist Hospital of Indiana to form Clarian Health Partners. Clarian Health is committed to supporting the school's mission of advancing education, research, and patient care. Located approximately two miles from IUMC, Methodist Hospital provides additional significant educational opportunities to IU students and residents.

Clarian Health's hospitals—Riley Hospital for Children, IU Hospital, and Methodist Hospital of Indiana—currently record approximately one million in- and out-patient visits per year. The affiliated hospitals—Wishard, Roudebush, and LaRue Carter—together handle another one million patient visits each year. This enormous patient base provides a broad range of superb clinical educational opportunities. The hospitals host 30 residency programs with 929 residents and provide clinical experiences in both in-patient and outpatient facilities to second- through fourth-year students. IUSM's nearly 800 teaching faculty staff all the hospitals. In addition, the hospitals host educational programs for nursing, dentistry, and allied health sciences students as well as Purdue University pharmacy doctoral students.



INDIANA UNIVERSITY SCHOOL OF MUSIC AT IUPUI



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Contents

373 Indiana University School of Music at IUPUI

373 Degrees Offered in Music

373 Graduate Program

373 Admission Requirements

373 Admission Categories

373 Admission on Probation

373 Degree Requirements

373 Minimum Grade Point Average

373 Residency Requirement

373 Core Courses

373 Cognate Field Courses

373 Internship and Technology Project

Opportunities

373 Music Minor

373 IUPUI Music Academy

373 IUPUI Day Care

374 International Music Technology Conference and Workshop

374 Undergraduate Music Courses

375 Graduate Music Courses

375 Administrators

375 Faculty

Indiana University School of Music at IUPUI

Indiana University's highly regarded School of Music has recently established a growing program at IUPUI that reflects urban culture. Activities include special courses on American popular music, contemporary music performance styles, and computer-based electronic music production.

The Indiana University School of Music at IUPUI is committed to delivering quality music instruction to the undergraduate non-major at the nation's premiere urban institution. Most courses carry no prerequisites and are open to all students. Performance ensembles are open to students, staff, faculty, and community members.

The Computer Music Technology Facilities have captured national attention. Several ensemble groups that are open to students, including the Jazz Ensemble, the Pep Band, and the IUPUI Chorus, perform at campus functions.

For more information, call or write:
Indiana University School of Music at IUPUI
Mary Cable Building, Room 222
525 N. Blackford Street
Indianapolis, IN 46202
(317) 274-4000
Web: music.iupui.edu
E-mail: info@music.iupui.edu

Degrees Offered in Music

The Master of Science in Music Technology degree is offered by the IU School of Music at IUPUI. Undergraduate classes and a minor in music are also available.

Graduate Program

The Master of Science Degree in Music Technology provides graduate students an academic background in digital music production, instructional design, and multimedia development. Current graduates of this master's program have found employment in a wide range of business and educational settings. Participants develop skills in designing software, using authoring tools and languages, applying multimedia concepts, and managing technology facilities and projects.

Admission Requirements

- Degree requirement: Bachelor's degree (with demonstrated musical skills)
- Minimum grade point average: 3.0 (4.0 scale)
- Admission interview: May be used to assess the applicant's musical literacy, computer literacy,* personal skills, and professional experience

*Students entering the M.S. program with little or no computer experience have to take Instructional Computing Basics (1-3 credit hours). The course consists of three units, each equivalent to one credit: computer awareness/literacy, basic applications, and instructional computing basics. A review of a student's prior computer coursework and experiences, combined when necessary with a test, will be used to assess competencies in each of the three areas. This course does not count toward the minimum 30 credit hour requirement.

- Portfolio: A performance tape and/or an original computer software program may be required to document an applicant's skills and experience
- Letters of recommendation: Three letters of recommendation are required to support the admission application

Admission Categories

Upon receipt of the completed application, letters of recommendation, transcript, portfolio, and the completed interview, the Graduate Admissions Committee of the IU School of Music at IUPUI may grant regular admission, grant admission on probation, or reject the application.

Admission on Probation

A student who does not have an undergraduate and graduate grade point average of 3.0 or better may be admitted on probation in exceptional cases. The probationary status continues until 15 credit hours of course work have been successfully completed. Students who are admitted on probation and incur academic probation during their first semester of study are subject to dismissal.

Degree Requirements

- 30 credit hours (courses at the 500 level or above)
- Six credit hours in cognate courses (at the 400 level) to be selected from music, business, education, communications, computer science, fine arts, or law
- Six credit hours of approved courses (at the 400 level or above) from the cognate field or other fields with the approval of the head of graduate studies

Minimum Grade Point Average

- 3.0 average to continue
- No grades lower than B in core courses are counted toward the degree
- No grades lower than C are counted toward the degree

Residency Requirement

- Three consecutive summers, or one summer and a contiguous academic term

Core Courses

The following courses, 18 credit hours, are required of all students enrolled in the MSMT program:

Class	Credit Hours
N512 Foundations of Music Production	3
N513 Principles of Multimedia Technology	3
N514 Music Technology Methods	3
N515 Multimedia Design Applications in the Arts	3
N516 Advanced Interactive Design Applications in the Arts	3
N517 Internship in Arts Technology OR	3
N518 Arts Technology Development Project	3
Total Credit Hours	18

Cognate Field Courses

Six credit hours are required in an approved cognate field within or outside the School of Music. Students may choose to complete the remaining 6 credit hours with emphasis in one of the following areas: music, business, communications, computer science, education, fine arts, law, or others with the approval of the department. The cognate field may become a minor if at least 12 credit hours are taken in one field.

Internship and Technology Project Opportunities

Students may elect to enroll in an internship (N517) or develop a multimedia project (N518) as the summative experience in the program. Either option is supervised by the student's academic advisor and requires a full report. (These courses are part of the core courses listed previously.) Students participating in the internship are placed in an academic technology setting or an industry setting for one semester of experience working with technology and multimedia experts. No thesis is required for the degree.

Music Minor

The IU School of Music at IUPUI welcomes students whose majors are outside the School of Music but who wish to minor in music. There is no audition required to minor in music, but students must declare music as their minor at the appropriate time in their undergraduate studies.

Music minors can and should participate in ensembles within the IU School of Music at IUPUI, and should register (or audition when required) for these ensembles during undergraduate orientation or the first week of class. The Jazz Ensemble, Pep Band, University Choir, and IUPUI Chorus are open to all students.

IUPUI Music Academy

The IUPUI Music Academy opens the world of music to students of all ages in its state-of-the-art music classrooms and computer labs. The Academy was established in August 1996 by offering piano and electronic keyboard instruction to children and adults. Since then, the academy has grown with the addition of preschool music programs and vocal and instrumental programs (violin, flute, sax, guitar, drums, trumpet). Classes are offered weekdays and on weekends for students' convenience.

IUPUI Day Care

Children attending the IUPUI Center for Young Children can join the Music Academy for preschool music classes during the week day. Students have their class in a music room during their free time. These students do not miss instruction time from the Day Care Program.

For more information, contact:

William Budai, Director
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Mary Cable Building, Room 220
Phone: (317) 278-2593
Fax: (317) 278-2590
E-mail: musacad@iupui.edu
Web: music.iupui.edu/academy

International Music Technology Conference and Workshop

The Annual International Music Technology Conference and Workshop is hosted in Indianapolis during the latter part of June. Two workshops are offered: one in Using the Internet and Web Design Instruction, and a second in Distance Learning Technology for Music. Participants may register for one or both workshops, and graduate credit is available for those who attend both workshops.

Participants in the International Computer Music Technology Conference will be able to see and experiment with the latest technology, such as the following:

- **Macintosh Music Lab:** The 15-station, fully equipped iMac lab is available. Each station is connected to the local area network and outfitted with CD-ROM, digital keyboard, and multimedia capabilities.
- **PC Music Lab:** The 21-station IUPUI Computer Music Technology Facility is one of the largest "fully networked" PC computer music education laboratories in the United States. Each of the workstations is equipped with a multimedia computer and a Korg X5D keyboard, and Viking Corporation's line of ergonomically designed furniture. For ease of use, each of the 21 workstations in the IUPUI Computer Music Technology Facility is connected to a Korg Group Education Controller Network.
- **Digital Keyboard Lab:** This lab is equipped with 16 Yamaha Clavinova keyboards, a Yamaha Lab-controller audio system, Macintosh computers/interface cards, and a Teacher's Station.
- **Graduate Lab:** This lab has full production capabilities. It is equipped with digital flatbed scanning, video and photographic digital cameras, sound-tool software, video-edit software, multimedia authoring tools, and CD-ROM burner hardware and software. Both Pentium and Macintosh computers are available.

Participants will have ample lab time to pursue individual projects on either platform throughout the conference. Participants will have the opportunity to work with both Macintosh and Windows applications. Topics include the following:

- Multimedia applications
- CD-ROM technology
- Music printing and notation
- Internet resources and Web design
- Computer-based music instruction
- Music workstation setup
- Grant writing
- Computer-based music curriculum design

Undergraduate Music Courses

D100 Percussion Elective/Secondary (2 cr.)

Individual percussion lessons, 50 minutes each week. Additional applied fee. Time scheduled with instructor. Interview/audition required. Call 274-4000 for audition.

E241 Introduction to Music Fundamentals (2 cr.)

Designed for, but not limited to, elementary education majors and others interested in using music as a learning tool.

E400 Undergraduate readings in Music Education (1-2 cr.)

F400 Seminar/Variable Topics (2-3 cr.)

L100 Guitar Elective/Secondary (2 cr.) Individual guitar lessons, 50 minutes each week. Additional applied fee. Time scheduled with instructor. Interview/audition required. Call 274-4000 for audition.

L101 Beginning Guitar Class (2 cr.)

Fundamentals of contemporary guitar playing, with emphasis on simple songs and chords; acoustic guitar required for class and practice.

L102 Intermediate Guitar Class (2 cr.) P: L101 and/or ability to read music and play chord structures proficiently. Builds on knowledge learned in L101; ability to reach chord notation, rhythms, and music notation necessary; acoustic guitar required for class and practice.

L103 Advanced Guitar Class (2 cr.) P: L101 or permission of instructor. Study of advanced techniques, including open tunings and slide guitar. A section for classical guitar is also available under this number.

M110 Special Topics in Music for Non-Music Majors (3 cr.) This is a variable topics class. At IUPUI, some of the topics could include the following: Music and Computers, Studio Music Lab, Urban Drum Experience (2 cr.), Understanding Jazz (1 cr.—5 weeks), Understanding the Orchestra (1 cr.—5 weeks), Women Musicians (1 cr.—5 weeks), or Music of Louis Armstrong (1 cr.—5 weeks).

M174 Music for the Listener (3 cr.) A survey course covering traditional and modern music styles of the last 1,000 years. Learn how to listen to music, instruments, and musical forms. No prior music experience required. (on campus and WWW)

M393 History of Jazz (3 cr.) Emphasis on jazz as a means to better understand the history and culture of America through examining the periods, major performers and composers, trends, influences, stylistic features, and related materials.

M394 Black Music in America (3 cr.) A survey and exploration of black music from its African origin to the present, with special emphasis on its social, economic, and political impact.

P100 Piano Elective/Secondary (2 cr.) Individual piano lessons, 50 minutes each week. Additional applied fee. Time scheduled with instructor. Interview/audition required. Call 274-4000 for audition.

P110 Beginning Piano Class for Non-Music Majors (2 cr.) Learn keyboard and music reading skills; must have access to out-of-class keyboard for practice. Classes meet in Clavinova lab. For students with no piano experience.

P120 Beginning Piano Class 2 for Non-Music Majors (2 cr.) P: P110 or permission of instructor. Builds on skills acquired in P110.

S110 Violin Elective/Secondary (2 cr.) Individual violin lessons, 50 minutes each week. Additional applied fee. Time scheduled with instructor. Interview/audition required. Call 274-4000 for audition.

S120 Viola Elective/Secondary (2 cr.) Individual viola lessons, 50 minutes each week. Additional applied fee. Time scheduled with instructor. Interview/audition required. Call 274-4000 for audition.

V100 Voice Elective/Secondary (2 cr.) Individual voice lessons, 50 minutes each week. Additional applied fee. Time scheduled with instructor. Interview/audition required. Call 274-4000 for audition.

V201 Voice Class 1 (2 cr.) Introductory aspects of voice, basic vocal techniques, and a wide variety of vocal styles and literature; students perform solo and ensemble singing. No previous music experience required.

W110 Flute/Piccolo Elective/Secondary (2 cr.) Individual flute/piccolo lessons, 50 minutes each week. Additional applied fee. Time scheduled with instructor. Interview/audition required. Call 274-4000 for audition.

W150 Saxophone Elective/Secondary (2 cr.) Individual saxophone lessons, 50 minutes each week. Additional applied fee. Time scheduled with instructor. Interview/audition required. Call 274-4000 for audition.

X040 University Instrumental Ensembles (2 cr.) Indianapolis Philharmonic Orchestra. Admission by audition only. Call 274-4000 for more information.

X040 University Instrumental Ensembles (2 cr.) IUPUI Jazz Ensemble. Music of the Big Band era. This class is contingent upon enrollment of full instrumentation. Enrollment limited. Audition/interview required. Call 274-4000 for information.

X040 University Instrumental Ensembles (1 cr. per semester) IUPUI Pep Band. The Pep Band is organized in the fall and performs at home basketball games in the spring. (Open to all students who play a band instrument.) Call 274-4000 for more information.

X070 University Choral Ensembles (2 cr.) The following vocal ensembles are available at IUPUI: IUPUI Chorus, IUPUI and Marian College Combined Choral Ensemble, and Indianapolis Symphonic Choir (authorization and audition required). Call 274-4000 for more information.

Z100 The Live Musical Performance (2 cr.) Examines the approach to attending live performances of music (large ensembles, chamber ensembles, solo

recitals, and other multimedia performances). Students attend live performances and discuss music performances by genre to develop critical listening skills.

Z111 Introduction to Music Theory (3 cr.) A study of fundamentals of the language and notation of music: listening, music reading and writing, and the elements of music as used in a variety of genres. Open to all students interested in a general background in music. Recommended for singers, instrumentalists, and keyboard players.

Z201 History of Rock 'n' Roll Music (3 cr.) Survey of major trends, styles, and genres of rock music of the 1950s and 1960s, focusing on the work of artists and groups who have proved to have the most enduring significance.

Z301 History of Rock Music—'70s and '80s (3 cr.) Survey of trends and styles in rock music of the '70s and '80s. Focusing on the artists and groups who have shaped the music of yesterday, today, and tomorrow.

Z315 Music for Film (3 cr.) A survey of the music and sound of movie soundtracks. Class will feature film segments, which are analyzed to see how music textures, tempos, and structures affect the plot. No prerequisite required.

Z320 Special Topics in Popular Music (3 cr.) This is a variable topics class in popular music. At IUPUI, some of the topics could include the following: Business of Commercial Music, Contemporary Broadway Musicals, Women Musicians, American Popular Music, Electronic Music Composition, or Music of Jimi Hendrix.

Z401 Music of the Beatles (3 cr.) Chronicles the meteoric rise of the group from Liverpool, England, that started the rock revolution heard around the world.

Graduate Music Courses

E536 Special Workshop in Music Education (1-3 cr.) IUPUI focuses on implementing computer, MIDI keyboards, and multimedia into the music curriculum. Also used for campus leaders speaking on topics of media, instructional technology, distance learning, and multimedia; plus leading music technology guests.

E536 Digital Sound Design for Multimedia (3 cr.) P: M110, N514, or consent of instructor. Presents music composition and multimedia applications for advanced M.I.D.I. systems and digital audio workstations. Analog, digital and software based synthesis as well as multi-track M.I.D.I./digital recording systems will be explored.

E536 Systematic Research in Arts Technology (3 cr.) P: Consent of instructor. Introduction to the underlying principles and concepts of technology-based studies in the arts. Emphasis on the integration of scientific methodology, descriptive and inferential techniques, and multimedia instrumentation in project development.

N512 Foundations of Music Production (3 cr.) P: Consent of instructor. Examines foundations and principles of music production. Topics include

publishing, print media, music composition, methods, textbooks, multimedia, computer and electronic transmission of computer imaging, sound, and video. Other aspects covered are broadcast media; televideo graphics; background audio; script credit approval; clearances; recording; CD audio; sampling and reproduction of sound and images; multimedia; and computer applications, including network and broadband transmission of media. Business affairs, arts management, live performance, and legal aspects of the commercial music industry are assessed.

N513 Principles of Multimedia Technology (3 cr.) P: Consent of instructor. Examines theories and research in the use of computer technology with special focus on curriculum design and implementation of technology in the classroom; learning and training theory paradigms applied to technology; technology selection and assessment for learner-centered, individualized instruction and training; implementation and resource allocation; assessment designs for specific instructional models; technology and assessment database manipulation; curriculum design and media-optimized instruction; training curriculum models; and multimedia motivation.

N514 Music Technology Methods (3 cr.) P: Consent of instructor. An in-depth study of sequencing and music notation technology. This course also explores the history of Music Instrument Digital Interface (MIDI) development and related uses of MIDI with multimedia, including history and development of music; computer graphics and video technology; multimedia methods and techniques applied to training and instruction; music applications of sound-based stimuli in methods; graphic design applications for visual stimuli; video graphics; and storyboard methods. Current and emerging digital arts technologies will be assessed.

N515 Multimedia Design Application in the Arts (3 cr.) P: Consent of instructor. Presents the principles and fundamentals of instructional design and design techniques using authoring tools on PC, Macintosh, and emerging computer platforms. Included are storyboarding, planning, and organization of scripts; the use of current technology, computers, video, and digital arts equipment; computer-assisted design and project planner software tools; and management of design team concepts. Also includes design parameters for CD-ROM and videodisc production.

N516 Advanced Interactive Design Applications in the Arts (3 cr.) P: N515 or consent of instructor. Incorporates extensive analysis and use of computer and multimedia authoring tools intended for specific educational applications. Project management and programming team organization; media management and selection criteria for digital arts media development; task analysis and instructional sequencing applied to training and instruction; assessment modeling and feedback schedules for intrinsic motivation of students and trainees are examined.

N517 Internship in Arts Technology (3 cr.) P: N516 or consent of instructor. An internship program for students to work with and learn from experts in arts technology fields who are developing and using new applications in commercial and educational

settings. Requirements for interns include the development of a technology project proposal; interview, resume, and project presentation; on-site intern residency; project report; and oral and media presentation of project outcomes.

N518 Arts Technology Development Project (3 cr.) Students create and orally present a multimedia teaching/training project which combines one or more of several elements of music technology including CD-ROM, videodisc, digital audio and video, and MIDI. Requirements include technology project proposal development; oral presentation of proposal; research and development of project; project final report; and oral and media presentation of project.

Administrators

G. David Peters, Professor and Director of Music Program

Fred J. Rees, Associate Professor and Head, Graduate Studies

Faculty

Albright, Bruce Randall, B.A., A.S. (*Indiana University, 1992, 1993*), *Part-time Lecturer*

Anderson, Elizabeth Rene, M.M.E. (*University of North Texas, 1993*), *Part-time Lecturer*

Babb, Douglas B., (*Indiana University*), *Part-time Lecturer*

Bailey, Darrell L., M.M.T. (*Oberlin College, 1976*), Ed.D. (*University of Illinois, 1989*), *Associate Professor and Associate Dean, School of Informatics and New Media Program*

Baranyk, David S., M.S. (*Indiana University, 1999*), *Part-time Lecturer*

Budai, William H., M.M. (*Bowling Green State University, 1995*); *Visiting Lecturer and Director, IUPUI Music Academy*

Burgomaster, Mary Ellen, M.M. (*University of Southern California, 1968*), *Part-time Lecturer*

Copeland, David, B.A. (*Indiana University, 1988*), *Part-time Lecturer*

Faulkner, James K., M.S.M.T. (*Indiana University—Purdue University Indianapolis, 1998*), *Part-time Lecturer*

Fraenkel, Karen, M.M., M.S. (*Indiana University, 1966, 1990*), *Part-time Lecturer*

Gerzon, Joan, M.M. (*Indiana University, 1951*), *Part-time Lecturer*

Gilfoy, Jack, M.S. (*Indiana University, 1965*), *Lecturer*

Goetz, Joy, M.S. (*Indiana University, 1998*), *Part-time Lecturer*

Herzig, Monika, M.A. (*University of Alabama, 1991*), D.M.E. (*Indiana University, 1997*), *Part-time Lecturer*

Hodapp, Martin, M.M. (*Indiana University, 1991*), *Part-time Lecturer*

Janke, Thomas J., M.S.M.T. (*Indiana University—Purdue University Indianapolis, 1999*), *Part-time Lecturer*

Koenig, Mark, M.M. (*Georgia State University, 1986*), *Part-time Lecturer*

Lindsay, Charise, M.M. (*Butler University, 2000*), *Part-time Lecturer*

Lindsey, Roberta L., M.A. (*Butler University, 1987*),
Ph.D. (*Ohio State University, 1996*), *Visiting
Assistant Professor*

Marshall-McClure, Clara J., M.A. (*Purdue University,
1984*), *Part-time Lecturer*

Morgan, David, B.A. (*Indiana University–Purdue
University Indianapolis, 1994*), *Part-time Lecturer*

Mullenix, Holly K., M.S. (*Indiana University, 1998*),
Part-time Lecturer

Myers, Kathleen D., M.M. (*Butler University, 2002*),
Part-time Lecturer

Nardo, Rachel L., D.M.A. (*University of Southern
California, 1996*), *Associate Professor*

Peters, G. David, M.S., D.M.E. (*University of Illinois,
1965, 1974*), *Professor and Director of the Music
Program*

Pickard, Beth A., M.A. (*Ball State University 1971*),
M.S. (*Indiana University, 1998*), *Part-time Lecturer*

Plexico, Byron, M.M. (*Butler University, 1991*),
Part-time Lecturer

Rees, Fred J., D.Mus.Arts (*University of Southern
California, 1977*), *Associate Professor and Head,
Graduate Studies*

Sittard, John E., M.A. (*Indiana University, 1993*),
Part-time Lecturer

Smith, Kenneth, H., M.A. (*Eastman School of Music,
1991*), *Part-time Lecturer*

Sowers, Jodi L., M.M. (*Butler University, 1998*),
Part-time Lecturer

Ware, Kenneth L., M.A., Ph.D., (*Indiana University,
1977, 1989*); *Visiting Professor*

Yon-Short, Chayoung, M.M. (*Butler University,
1995*), *Part-time Lecturer*

INDIANA UNIVERSITY SCHOOL OF NURSING



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Contents

379 Introduction to the School of Nursing	387 Academic Expectations/Progression	394 Addition of Courses/Change of Section
379 Historical Milestones	387 Academic Policies and Procedures	394 Cumulative Grade Point Average
379 Mission of the School of Nursing	387 Dismissal and Reinstatement	394 Computer Literacy
380 Statement by the Dean	387 Out of Sequence	
380 Accreditations	387 Dismissal	394 Master of Science in Nursing (M.S.N.)
380 Memberships	387 Reinstatement	394 Admission Requirements
380 Professional/Technical Standards	387 Degree Requirements	394 Mobility Option
380 ANA Standards of Professional Performance	388 School Requirements	395 Admission of Students on Academic Probation
380 ANA Code for Nurses	388 Sample Curriculum Plan	395 Maintaining Active Status of Admission
380 Essential Abilities	388 L.P.N. to A.S.N. Mobility Option	395 Part-Time Study
381 School of Nursing Requirements	388 Academic Expectations/Progression	395 Degree Requirements
381 Completion of Degree Requirements	388 Advanced Placement	Portfolio Review Process for M.S.N. Course Substitution
381 Auditing of Courses	388 School Requirements	395 Academic Standing of Students
381 Professional Liability Insurance	388 Sample Curriculum Plan	395 Good Standing
381 Health Requirements	389 Bachelor of Science in Nursing (B.S.N.)	395 Disciplinary Probation
381 Health Insurance	389 Philosophy Statement	395 Academic Probation
381 Academically Disadvantaged Students	389 Purpose	395 Maintaining Status
381 Students with Disabilities	389 Student Outcomes	395 General Policies
381 Writing Competencies	389 Admission Criteria	395 Correspondence Courses
381 Computer Literacy	390 Academic Expectations/Progression	395 Transfer of Credits
381 Transportation	390 Academic Policies and Procedures	395 Degree Programs
381 Essential Support Services	390 Dismissal and Reinstatement	395 Study/Thesis Continuation
381 Continuing Education Program	390 Dismissal	395 Curriculum Design
381 Center for Nursing Research	390 Reinstatement	395 Post-Master's Options
382 Development Office	391 Degree Requirements	395 Program Descriptions
382 School of Nursing Alumni Association	391 Honors Option	396 Nursing Administration
382 School or Program Clubs	391 School Requirements	396 Clinical Specialists
382 Departmental Mission	391 Sample Curriculum Plan	396 Nurse Practitioners
382 Adult Health	391 Accelerated B.S.N. Mobility Option	396 Dual Degrees
382 Environments for Health	391 Admission Criteria	396 Dual M.H.A./M.S.N. Degrees
382 Family Health	392 Curriculum Plan	396 Dual M.S.N./M.A. in Philanthropic Studies (PHST) Degrees
383 Undergraduate Programs	392 R.N. to B.S.N. Mobility Option	396 Ph.D. in Nursing Science Program
383 Special Expenses	392 Academic Policies and Procedures	397 Admission Requirements
383 Grade Replacement, Forgiveness, Repeating Courses, Auditing	392 Advanced Placement	397 Study and Research Focus Areas
383 Required General Education Courses	392 School Requirements	397 Acute and Chronic Health Problems
383 Auditing of Courses	392 Sample Curriculum Plan	397 Environments for Health
383 Correspondence Courses	393 Residency Requirements	397 Family Health Adaptation
383 Portfolio Review	393 R.N. to Master's Degree Mobility Option	397 Health Promotion
383 Withdrawal	393 Graduate Programs	397 Curriculum
383 Good Standing	393 General Policies for the School of Nursing, All Campuses	398 Ph.D. in Nursing Science Program: Sample Course of Study
383 Academic Probation	393 Student Responsibility	
383 Advanced Placement	393 English as a Second Language	398 Financial Information
383 A.S.N./B.S.N.	393 Programs of Study	398 School of Nursing Support
384 Orientation	393 Application	398 Professional Nurse Traineeships
384 Ten-Year Limit	393 How to Apply	398 Fee Scholarship/Remissions, Research Graduate Assistantships
384 Practicum/Clinical Absence Policy	393 Application Deadlines	398 University Support
384 Academic Appeals	393 Academic Policies for the Graduate Programs in the School of Nursing	398 University Fellowships
384 Eligibility for Licensure	393 Semester Load	398 IUPUI Educational Opportunity Fellowships
384 Intercampus Transfer	393 Absences	398 Graduate Work-Study Positions
384 Transfers from Other Universities or Colleges	393 Leave Policy	398 Educational Services
384 Professional Practices, Internships, Honors at School Level	393 Completion of Degree Requirements	398 Orientation
384 Honors and Awards	393 Auditing of Courses	398 Guidance and Counseling
385 School Awards and Scholarships	394 Withdrawals	398 Graduate Minority Mentoring Program
385 Associate of Science in Nursing (A.S.N.)	394 Incomplete (I) Grades	399 Courses
385 Philosophy Statement	394 Deferred Grades	406 School of Nursing Administration
385 Purpose		406 Faculty
385 Student Outcomes		
386 Category I (First Priority)		
386 Category II (Second Priority)		
386 Category III (Third Priority)		

Introduction to the School of Nursing

The Indiana University School of Nursing opened its doors in Indianapolis in 1914. Since that time, it has evolved into one of the nation's most eminent schools, recently receiving a ranking of twelfth out of more than 200 schools of nursing that offer graduate programs.

Historical Milestones

1914	Indiana University Training School for Nurses opened at Indianapolis
1932	Curricula established for Bachelor of Science in Nursing on Bloomington campus for public health nursing, administration and supervision of nursing service, and teaching in schools of nursing offered for registered nurses in Bloomington
1944	Division of Nursing Education placed in School of Education with preparation for teachers of science, nursing arts, medical-surgical, maternity, and pediatric nursing
1945	Master of Science in Nursing Education first offered at IU Bloomington
1950	Bachelor of Science in Nursing (B.S.N.) program first offered
1956	Name of school officially changed to Indiana University School of Nursing
1957	Original National League for Nursing (NLN) accreditation for the Master of Science in Nursing (M.S.N.) program
1960	Last diploma school graduates
1961	Original NLN accreditation for the B.S.N. program
1965	All nursing programs organized into one administrative unit to form the School of Nursing, the tenth school of Indiana University
1965	Associate of Arts program developed by the regional campuses and the school
1965	General nursing program for registered nurses discontinued
1966	M.S.N. degree first offered
1968	Original NLN accreditation for the Associate of Arts Program, IUPUI
1974	School of Nursing building dedicated at IUPUI
1974	First efforts toward establishing a systemwide school
1975	Specialist in Clinical Nursing program approved
1975	NLN accreditation for A.S.N. program continued to 1983, IUPUI and IU East
1975	First students enrolled in A.S.N. major courses on the Richmond campus (IU East)
1976	Original American Nurses' Association (ANA) accreditation for the Continuing Education program
1976	Doctor of Nursing Science (D.N.S.) program approved
1976	NLN accreditation for B.S.N. and graduate programs continues
1978	First doctoral students admitted

1979	B.S.N. program extended to IU South Bend and IU Southeast
1980	New upper-division baccalaureate curriculum initiated
1981	B.S.N. program extended to IU Northwest
1981	First Doctor of Nursing Science degree awarded
1981	Kokomo campus becomes part of systemwide school
1982	NLN accreditation for B.S.N. and graduate programs continued until 1990
1983	Extension of B.S.N. program to IU Kokomo approved
1983	Extension of M.S.N. program to multiple sites approved
1983	NLN accreditation for A.S.N. program continued to 1991, IUPUI and IU East
1984	Extension of B.S.N. program to IU East approved
1985	First master's degree courses offered at five sites—Indiana Higher Education Telecommunications System (IHETS)
1985	NLN accreditation for A.S.N. program continued to 1993, IU Northwest
1985	Office of Nursing Practice established
1986	NLN accreditation for A.S.N. program continued to 1994, IU Kokomo
1987	Extension of B.S.N. program to IU South Bend approved
1987	Extension of A.S.N. program to IU South Bend approved
1987	Approval of Licensed Practical Nurse (L.P.N.) to A.S.N. mobility option at IUPUI Columbus
1989	School reorganized into academic departments
1990	Formal planning for a Ph.D. program in nursing initiated
1990	Institute of Action Research for Community Health established
1991	Designation of Institute of Action Research for Community Health as a World Health Organization Collaborating for Healthy Cities
1991	Establishment of Mary Margaret Walther Program in Oncology Care Research
1991	Implementation of the R.N. to M.S.N. mobility options
1993	Accreditation of A.S.N., B.S.N., and M.S.N. programs by the National League for Nursing for eight years
1995	Transition from D.N.S. to Ph.D. degree program approved
1996	First class of Ph.D. in Nursing Science students admitted
1998	Emily Holmquist Endowed Professorship instituted
1998	Commission on Collegiate Nursing Education (CCNE) Board of Commissioners granted IUPUI preliminary approval of the baccalaureate and master's nursing education programs
1999	85th anniversary of nursing at Indiana University
2000	Accreditation of A.S.N., B.S.N., and M.S.N. programs by the National League for Nursing
2000	Accrediting Commission for eight years
2000	New ten-year accreditation of B.S.N. and M.S.N. programs by the Commission on Collegiate Nursing Education

Mission of the School of Nursing

Indiana University School of Nursing on the campuses of IUPUI, IUPU Columbus, and IU Bloomington functions in most respects as one administrative unit, known as the Corridor. The mission of the Corridor is to create a community of learning that addresses society's need for caring and scientifically prepared nurse professionals, as well as the educational and developmental needs of students, faculty, staff, and alumni from diverse backgrounds. Through the scholarship of creative pedagogy, discovery, application, and integration, the Corridor will improve the health and quality of life for the citizens of central Indiana, the state, the nation, and beyond by meeting society's need for nurses at different educational levels who are prepared to be effective in a range of practice settings.

As the core campus of the largest multipurpose school of nursing in the country, the Corridor seeks to have top-ranked programs in nursing education and research. Toward that end, the Corridor emphasizes:

- Superior and innovative teaching
- Health behavior research
- Interdisciplinary collaboration
- Partnerships with the community
- Lifelong learning

The Corridor seeks to be known for:

- Creative problem-solving through critical thinking and innovative use of information technology
- Best practice models for culturally appropriate health services, in local to international arenas
- Nursing knowledge development related to healthy lifestyles, self-care, functional enhancement, effective symptom management, and delivery systems
- Leadership in health policy

The mission and values of the School of Nursing are consistent with campus aspirations toward quality, collaboration, centrality, and identity. They further the overall mission:

- To raise educational achievement and intellectual aspiration in Indianapolis, the state of Indiana, and beyond, through leadership, access, and commitment to lifelong learning
- To develop and apply knowledge to ever-changing issues of health and of economic and social well-being, through teaching, research, and service
- To enhance the professional and personal lives of students by offering the state's most comprehensive range of effective academic programs
- To serve as a model for collaboration and interdisciplinary work
- To build understanding and respect in academic and human relationships through the appreciation and celebration of diversity

Statement by the Dean

Since its founding in 1914, Indiana University School of Nursing has grown into one of the largest schools of nursing in the country, and it is ranked as one of the best. We offer the full range of academic degrees, from undergraduate through doctoral levels, as well as postdoctoral research training and extensive continuing education. As one school with offerings at eight locations (Bloomington, Columbus, Gary, Indianapolis, Kokomo, New Albany, Richmond, and South Bend), we are committed to your career preparation. Our more than 23,000 graduates are chief nursing officers of large health facilities, deans of nursing schools, clinical specialists, entrepreneurs, and staff nurses in urban and rural settings around Indiana and throughout the world.

As I look back over my own nursing career, I am struck by how nursing can be a means of developing all aspects of one's personality, from the caring to the analytical. I have had experiences that were outside my realm of thinking when I earned my undergraduate degree, and I am convinced there is no talent or ambition that cannot be realized in this profession. As I look to the future, I see nursing holding on to traditional caregiving values, but playing them out in new and exciting ways. Faced with the challenges of changing health care delivery, nurses will be called on to lead in areas never dreamed of by earlier generations. Know that the talented faculty at Indiana University are committed to helping you realize your professional aspirations in every career transition that you undertake, and to enabling you to seize your own preferred future. At all levels and on all campuses, Indiana University School of Nursing has forged strong links between nursing education and nursing services in clinical and community settings in order to improve the health of individuals, families, and communities. I welcome you and invite you to become a part of our extended IU family.

Angela Barron McBride, Ph.D., R.N., F.A.A.N.
University Dean and Distinguished Professor of Nursing

Accreditations

National League for Nursing Accrediting
 Commission—A.S.N., B.S.N., and M.S.N.
 programs

Commission on Collegiate Nursing Education—B.S.N.
 and M.S.N. programs

Indiana State Board of Nursing—A.S.N. and B.S.N.
 programs

American Nurses Credentialing Center's Commission
 on Accreditation

Memberships

The School of Nursing is an agency member of the National League for Nursing's Council of Associate Degree Programs and the Council of Baccalaureate and Higher Degree Programs, Commission on Collegiate Nursing Education (CCNE), as well as the Committee for Institutional Cooperation (CIC). The school is also a constituency member of the National League for Nursing; and the American Association of Colleges of Nursing. The Clarian Health Nursing Service is an agency member of the Council of Hospitals and Related Institutional Nursing Services.

Professional/Technical Standards

Students of the School of Nursing will be held to the American Nurses' Association's "Standards of Professional Performance" and "Code for Nurses," and the School of Nursing's Essential Abilities (outlined below). Failure to uphold these standards may result in dismissal from any nursing program.

ANA Standards of Professional Performance (revised 1989)

1. The nurse systematically evaluates the quality and effectiveness of nursing practice.
2. The nurse evaluates his or her own nursing practice in relation to professional practice standards and relevant statutes and regulations.
3. The nurse acquires and maintains current knowledge in nursing practice.
4. The nurse contributes to the professional development of peers, colleagues, and others.
5. The nurse's decisions and actions on behalf of clients are determined in an ethical manner.
6. The nurse collaborates with the clients, significant others, and health care providers.
7. The nurse uses research findings in practice.
8. The nurse considers factors related to safety, effectiveness, and cost in planning and delivering client care.

ANA Code for Nurses (revised 1985)

Each person, upon entering the nursing profession, inherits a measure of the responsibility and trust associated with the profession, along with the corresponding obligation to adhere to the standards of ethical practice and conduct it has set. Nursing students are expected to show responsibility in their behavior, to deal with faculty, peers, patients, and clinical staff in a direct and honest manner, and to be professional in their conduct. Students who violate accepted standards for professional nursing may be discharged from the program.

1. The nurse, in all professional relationships, practices with compassion and respect for the inherent dignity, worth, and uniqueness of every individual, unrestricted by considerations of social or economic status, personal attributes, or the nature of health problems.
2. The nurse's primary commitment is to the patient, whether an individual, family, group, or community.
3. The nurse promotes, advocates for, and strives to protect the health, safety, and rights of the patient.
4. The nurse is responsible and accountable for individual nursing practice and determines the appropriate delegation of tasks consistent with the nurse's obligation to provide optimum patient care.
5. The nurse owes the same duties to self as to others, including the responsibility to preserve integrity and safety, to maintain competence, and to continue personal and professional growth.
6. The nurse participates in establishing, maintaining, and improving healthcare environments and conditions of employment

conductive to the provision of quality health care and consistent with the values of the profession through individual and collective action.

7. The nurse participates in the advancement of the profession through contributions to practice, education, administration, and knowledge development.
8. The nurse collaborates with other health professionals and the public in promoting community, national, and international efforts to meet health needs.
9. The profession of nursing, as represented by associations and their members, is responsible for articulating nursing values, for maintaining the integrity of the profession and its practice, and for shaping social policy.

Essential Abilities

The School of Nursing faculty have specified essential abilities (technical standards) critical to the success of students enrolled in any IU nursing program.

Qualified applicants are expected to meet all admission criteria, and matriculating students are expected to meet all progression criteria, as well as these essential abilities (technical standards) with or without reasonable accommodations.

1. **Essential judgment skills to include** ability to identify, assess, and comprehend conditions surrounding patient situations for the purpose of problem solving and coming to appropriate conclusions and/or courses of action.
2. **Essential neurological functions to include** ability to use the senses of seeing, hearing, touch, and smell to make correct judgments regarding patient conditions for the purpose of demonstrating competence to safely engage in the practice of nursing. Behaviors that demonstrate essential neurological functions include, but are not limited to, observing, listening, understanding relationships, writing, and employing psychomotor abilities.
3. **Essential communication skills to include** ability to communicate effectively with fellow students, faculty, patients, and all members of the health care team. Skills include verbal, written, and nonverbal abilities consistent with effective communication.
4. **Essential emotional coping skills to include** ability to demonstrate the mental health necessary to safely engage in the practice of nursing as determined by professional standards of practice.
5. **Essential intellectual and conceptual skills to include** ability to measure, calculate, analyze, synthesize, and evaluate to engage competently in the safe practice of nursing.
6. **Other essential behavioral attributes to include** ability to engage in activities consistent with safe nursing practice without demonstrated behaviors of addiction to, abuse of, or dependence on alcohol or other drugs that may impair behavior or judgment. The student must demonstrate responsibility and accountability for actions as a student in the School of Nursing and as a developing professional nurse. (Policy VI-A-15)

School of Nursing Requirements

Completion of Degree Requirements

The School of Nursing must receive notices of removal of Incomplete and Deferred grades, special credit grades, and independent study course grades no later than three weeks before the end of classes in the student's last semester prior to graduation.

Auditing of Courses

An audit student officially registers for a class and pays the applicable credit hour rate. Upon completion, the course is entered on the permanent university record as one taken for no credit (NC). Note that this option is available only with the instructor's permission.

Professional Liability Insurance

All undergraduate and graduate nursing students have liability insurance under IU's malpractice contract. This policy covers students only while caring for patient/clients in the student role. This insurance does not cover students who are working for pay or in any other capacity outside program-sanctioned learning experiences.

Health Requirements

All nursing students must provide evidence of compliance with health requirements including immunizations and CPR certification on the campus where they are enrolled. **Failure to meet health requirements will prevent the student from participating in clinical learning experiences.** Lack of participation could constitute a clinical course failure. Occupational Safety and Health Administration (OSHA) training related to blood-borne pathogens is required of all students annually. Students will be notified of training dates and times. The School of Nursing faculty and administrators strongly encourage students to carry personal health insurance. The school will not be liable for any health problems requiring medical treatment for students enrolled in programs.

Health Insurance

Health insurance is mandatory and students are expected to demonstrate insurance coverage on entrance to the program and continued coverage throughout the program.

Academically Disadvantaged Students

Programs for academically disadvantaged students are available on IU campuses. Resources vary from campus to campus. Students should see individual campus bulletins for specific campus resources.

Students with Disabilities

The University is committed to helping temporarily and permanently disabled students make the transition to student life. Students with physical, mental, or learning impairments are encouraged to consult with counselors from the School of Nursing and Adaptive Educational Services for assistance in

meeting degree requirements. Students with disabilities must meet all academic and technical skill requirements of their program.

Writing Competencies

Writing competency is an expected outcome of the nursing program, and of the University. In an effort to prepare students well in this area, faculty have developed the following writing criteria to be used in assessing all student writing:

1. The writing has a focus.
2. The writing should be organized with an introduction, purpose, sense of audience, thesis, and conclusion.
3. The writing shows development, organization, and detail; the writing reveals the student's ability to develop ideas with balanced and specific arguments.
4. The writing is clear.
5. There is coherence within and between paragraphs.
6. The writing reflects critical thinking, linking the specific to the general.
7. The writing contains appropriate sentence structure, variety, punctuation, and spelling; it is free from errors in grammar and punctuation.
8. The writing follows APA style and format, unless another style and format are specified for a particular purpose.
9. The writing demonstrates original work, and where ideas or materials of others are used, appropriate credit is given to original sources. (Policy III-E-4)

Computer Literacy

Prior to enrolling in the nursing courses, faculty members expect nursing students to use computers well enough to log on to the Internet to access class content. Students should also be able to search for nursing-related materials and to return to an interesting site whenever they choose by using bookmarks or a word processor to store Internet location addresses. Students also should be able to use a word-processing program and to log in to an e-mail account to communicate with other students and faculty.

Students participating in Web-based courses should have a Pentium Pro computer with at least a 36.6-baud modem; a minimum of 32 MB RAM, 166 MHz or greater processing speed; multimedia capabilities; and the IUPUI SoftPak software. This software can be purchased at the IUPUI Cavanaugh Bookstore on CD for \$5. These CDs include software to connect to the IUPUI network, Netscape Communicator to use as a World Wide Web browser, and a virus checker. If the students are outside of the Indianapolis calling area, they should acquire an Internet provider such as America On Line (AOL), Prodigy, CompuServe, or another that has a phone number in their calling area. These commercial providers have their own World Wide Web browsers. Students in R.N.-B.S.N., R.N.-M.S.N., M.S.N., and Ph.D. programs are *required* to have their own computer and to be able to access the IUPUI campus services.

Transportation

Clinical practice learning experiences are varied in setting and are located within the surrounding communities of Indianapolis, Columbus, and Bloomington. Students are expected to travel to and from all clinical experiences, are responsible for providing their own transportation, and are expected to carry the appropriate insurance. The School of Nursing is not liable for any traffic violations or auto mishaps occurring during student commutes.

Essential Support Services

Continuing Education Program

The School of Nursing Continuing Education staff members facilitate the provision of noncredit continuing education for registered nurses and other health-related personnel. Offerings are determined on the basis of expressed needs of consumers and emerging patterns and trends in health care. Each continuing education program attempts to be responsive to the needs of the learners in regard to scheduling, time (day or evening), day of the week, and duration of instructional period. The length of each educational activity depends on the stated behavioral objectives, varying from one or two days to a semester in length, or consisting of a time interval series of programs that reinforces the application of new knowledge and skills. Courses are taught in an onsite format, by independent study, via two-way video, or on the World Wide Web.

Educational offerings are taught by experts in nursing and allied health fields who are clinicians and consultants in specialized areas of health care in the state of Indiana, at the Indiana University School of Nursing, or at other universities. The continuing education program is accredited by the American Nurses Credentialing Center's Commission on Accreditation as a provider of continuing nursing education.

Visit our Web site at nursing.iupui.edu for complete information and registration for upcoming courses. E-mail may also be sent to censg@iupui.edu, or call (317) 274-7779.

Center for Nursing Research

The mission of the Center for Nursing Research is to support the development, dissemination, and utilization of knowledge by (1) providing for development in the areas of research planning, grant writing, budget preparation, data analysis, and research dissemination; (2) coordinating and facilitating the experiences of research assistants; (3) facilitating joint projects between practitioners and educators; (4) providing ongoing information about research resources; and (5) publicizing faculty and student research accomplishments. The Center for Nursing Research supports the activities of the Patient Care Research Committee, which plans the IU/Clarian Annual sponsored each year by the Clarian Health Partners, Inc., Indiana University Hospital Nursing Service Department, and the School of Nursing. Staff members also assist the Research Committee, especially in its review of requests and awards for intramural funding (Project Development Program

funds and Research Incentive funds). Currently funded faculty projects include studies of factors affecting adaptation to childhood epilepsy, epilepsy outcomes in youth, factors predicting quality of life in dementia patients, breast cancer screening behaviors, cancer risk and genetic risk education for first-degree relatives of colorectal cancer patients, cancer care interventions to improve functioning and psychosocial outcomes in newly diagnosed cancer patients, HIV disease and the partner relationship, community-based nurse-managed clinics, school-based primary health care, making cities healthier, healthy families, and prenatal care to prevent low-birthweight infants. For further information, contact the Indiana University School of Nursing, Center for Nursing Research, 1111 Middle Drive, NU 338, Indianapolis, IN 46202; telephone (317) 274-7627, or visit the Center for Nursing Research home page at nursing.iupui.edu.

Development Office

The Development Office, headed by the director of development, collaborates with the Indiana University Foundation to design and implement fundraising efforts under the direction of the dean of the School of Nursing. Objectives of the office are to do the following:

- Work with faculty, alumni, staff, and volunteers to identify, cultivate, and secure gifts from individuals, foundations, and corporations, thereby enhancing the community of learning.
- Supervise planning and implementation of fundraising activities, special events, and donor recognition programs.
- Develop and maintain publications about the school and opportunities for giving.

For more information, please contact the Development Office, School of Nursing, NU 102, IUPUI; telephone (317) 274-1545 or (317) 274-4293; fax (317) 278-7908.

School of Nursing Alumni Association

The Indiana University School of Nursing Alumni Association, a constituent society of the greater IU Alumni Association, was established in 1918 by members of the first IUSON graduating class. Members of this class sought to maintain their strong connection to Indiana University, the School of Nursing, and to other alumni by formally establishing the organization. Through the years, the School of Nursing Alumni Association has grown to more than 2,500 dues-paying members. It represents the interests of more than 20,000 IU School of Nursing graduates worldwide. The 30-member Nursing Alumni Association Board of Directors, a group made up of nursing graduates from every School of Nursing campus, serves as the governing body for the organization. It works to implement a variety of service, professional, and social activities each year. Some of these events include local and regional alumni receptions, alumni service awards, student scholarships, class reunions, and continuing education programs. In addition, the association works to promote the general interests of the School of Nursing, the university, and the nursing profession.

School or Program Clubs

Sigma Theta Tau The Alpha chapter of the international honor society of nursing was organized at Indiana University. Students in baccalaureate and graduate programs may be admitted to membership if they have demonstrated excellence in their nursing programs and have shown superior academic and personal records of achievement. Qualified members of the nursing profession, upon demonstration of marked achievement in nursing, are also eligible for membership. Leadership, research, and scholarship constitute the purposes of Sigma Theta Tau International.

Student Nurses' Association All prenursing and nursing undergraduate students are eligible for membership in the National Student Nurses' Association, the Indiana Association of Nursing Students, and IU's local chapter. The chief purpose of the organization is to help students prepare to assume professional responsibilities through programs that involve nursing students in health care issues, legal aspects of nursing, interdisciplinary questions, and community activities at the local, state, and national levels.

Chi Eta Phi Sorority, Inc. This service organization is open to all undergraduate nursing students who demonstrate excellence in the profession of nursing, maintain an acceptable grade point average, demonstrate leadership, and participate in campus and community activities. This organization affords students an opportunity to engage in service activities and to promote interest in the field of nursing locally and nationally.

Minority Nursing Student Organization (MNSO) The purpose of the MNSO is to serve as a peer support group for undergraduate, graduate, and prenursing minority students. The organization serves as a liaison among minority nursing students, faculty, and interested persons, groups, and organizations in the school, university, and community.

Presidents' Council The Presidents' Council is composed of the presidents of School of Nursing student organizations, class officers, faculty advisors, and representatives from school committees that deal with student matters. The purpose of this group is to be a liaison between various student groups, the faculty, and administration of the school. This group is especially involved in decisions associated with progression through the program and with graduation-related events. Class presidents are expected to keep classmates informed of issues and to act as advocates for their peers.

Pi Lambda Theta Graduate students with GPAs of at least 3.5 who are enrolled in teacher education courses may meet selective criteria for election to Pi Lambda Theta, an international honor society and professional association in education.

Graduate Nursing Student Organization The Graduate Nursing Student Organization seeks to foster

fellowship, cooperation, and communication among graduate nursing students; to provide a means for graduate students to share concerns; to share information regarding student activities and concerns; to plan service and educational projects; and to provide representation for graduate students. The goal of the organization is to uphold the ideals and standards of the School of Nursing.

IU School of Nursing Committees Students are invited to participate on School of Nursing standing committees of the Council of Nursing Faculty, and on ad hoc task forces. Examples include the Curriculum Committee and the Student Affairs Committee.

Departmental Mission

Adult Health

The mission of the Department of Adult Health is to focus on the generation, utilization, and dissemination of knowledge related to the health care of adults. We offer courses in the A.S.N., B.S.N., M.S.N., and doctoral programs available through the School of Nursing.

Environments for Health

Consistent with the vision and mission of the School of Nursing, faculty in the Department of Environments for Health facilitate student learning by creating, applying, and transferring their unique knowledge and skills in the areas of psychiatric nursing, nursing administration, community health nursing, nursing informatics, and teacher education.

Family Health

The Department of Family Health Nursing focuses on the care of people and their families across the life span. The department's vision arises from the broader tripartite mission of the university, the school, and the Corridor: teaching, scholarship, and service. We embrace these essential values:

- The community is the context for our care of families.
- Interdisciplinary collaboration promotes better health care.
- Nursing of families requires a life span approach.
- Students, clients, communities, and faculty participate in connecting conversations.
- We value diversity in family constellations.
- Our practice is grounded in health as families define it.

The Department of Family Health Nursing seeks to be known for:

- Faculty clinical excellence
- Superior and innovative teaching
- Community partnerships
- Nurturing environments for students
- Research and scholarship in health promotion and family health

Undergraduate Programs

Special Expenses

- Practice kit fee—This kit includes supplies that the student will be using in the learning lab and clinical settings.
- Practicum fees—Certain courses at the School of Nursing are assessed practicum (clinical) fees in addition to credit hour charges.
- Uniform—All undergraduate nursing students must purchase the designated uniform and wear it, along with appropriate identification, while in clinical settings. Registered nurse students may wear a professional uniform appropriate to the clinical setting. Students not appropriately attired may be asked by their instructor to leave the clinical area.
- Lockers—Lockers are available for rental per semester for those attending the IUPUI campus in the School of Nursing building.

Grade Replacement, Forgiveness, Repeating Courses, Auditing

Required General Education Courses

To be considered for admission, a student must earn a minimum grade of C (2.0) in all required general education courses (C– is not acceptable). These courses may be repeated no more than one time. Effective Fall 2001 and thereafter, all incoming freshmen, ongoing students, and transfer students may repeat no more than three (3) required general education courses or only two (2) required science courses. (Policy U-VI-A-16)

The following policies apply to all students enrolled in the A.S.N. or B.S.N. programs. Students will be notified in writing of any additions to, deletions from, or modifications of those policies listed below.

Auditing of Courses

Students may register for general-education classes that will not apply to their degree on a credit or audit basis. Students auditing a course must officially register for the class and pay any applicable fees. Upon completion, the course is entered on the permanent university transcript as taken for no credit (NC). *Required general-education courses taken for NC will not apply toward completion of nursing degree requirements.* Students should check with an academic counselor as to procedures and fees for auditing classes.

Students may not audit nursing practicum courses. Permission to audit a didactic nursing course depends on availability of space, faculty consent, and demonstration of adequate program progression on the part of the student.

Correspondence Courses

Other than public speaking, all required and elective courses for the nursing major that are offered by IU's Independent Study Program may be taken for credit. Some correspondence courses, however, may not meet degree requirements. Students must contact an academic counselor before enrolling, and obtain the counselor's signature for all correspondence courses. Correspondence courses with nursing numbers do not satisfy residency requirements. Students are responsible for ensuring that all correspondence courses are completed by published deadlines. All correspondence courses must be completed prior to graduation. (A.S.N. students must complete any correspondence or independent study courses prior to enrollment in the fourth [final] semester of nursing course work. If any such course is incomplete, they must register for the on-campus course in the fourth semester.)

Portfolio Review

Students may also pursue the portfolio option if they believe they have knowledge and skills consistent with specific required course objectives and outcomes. If students wish to pursue this mechanism, they must contact the instructor responsible for the course during the semester prior to the semester in which the student would actually need to take the course. If the portfolio is not accepted, the student must register for and successfully complete the course. The portfolio review option does not take the place of course equivalency reviews or transfer credit. Students may pick up a copy of the Undergraduate Student Guideline and the portfolio review form from the Office of Educational Services (IUPUI: NU 122), or from the course instructor. As part of the portfolio process, students will be expected to register for portfolio review credit. Your academic counselor can facilitate this registration process.

Withdrawal

Students withdrawing from nursing course work must complete this work prior to progression in the program. Students withdrawing from required nursing course work will be considered out-of-sequence students.

The following stipulations apply to all undergraduate nursing students:

1. Withdrawal from a required general-education course in the semester indicated in the curriculum requires withdrawal from all corequisite courses.
2. Withdrawal from a required nursing didactic course requires withdrawal from the corequisite nursing practicum/clinical course.
3. Failure to register in each sequential semester, excluding summer session, constitutes disruption in progression, and students must seek reinstatement.
4. Approval for withdrawing from nursing courses is granted at the discretion of the faculty. Approval may be granted (based on circumstances) if the student has a didactic grade of at least C (2.0) or

a practicum grade of S (Satisfactory) in nursing major courses.

5. A pattern of withdrawals may influence requests for consideration of reinstatement.
6. Students who withdraw from the nursing major in the first semester must seek readmission to the program, subject to competitive review (A.S.N. as Category II applicants).
7. Students seeking withdrawals after the completion of first-semester courses must formally request continuation in the program. Students who interrupt studies are considered out of sequence and may progress only if space is available in needed courses. The date of graduation for out-of-sequence students is not guaranteed.

Good Standing

All undergraduate students who maintain a minimum cumulative grade point average (GPA) of 2.0 and earn a grade of C (2.0) or better in all required general education and didactic courses and a grade of S in all required practicum/clinical courses will be considered in good standing. (Policy U-VI-A-8)

Academic Probation

An undergraduate student will be placed on probation when any of the following conditions exist:

1. The cumulative GPA falls below 2.0.
2. The semester GPA falls below 2.0.
3. A grade below C (2.0) has been received in a required didactic course, or a grade of F has been earned in a required practicum/clinical course.

Academic probation will be removed when all of the following conditions exist:

1. The cumulative GPA is 2.0 or higher.
2. The semester GPA is 2.0 or higher.
3. A minimum grade of C (2.0) has been received in the required didactic courses completed, and a grade of S has been earned in the required practicum/clinical courses completed.
4. All other specific conditions, if required, have been met. (Policy U-VI-A-8)

Advanced Placement

A.S.N./B.S.N.

Students transferring from another A.S.N./B.S.N. program may pursue advanced placement if they are in good academic standing in the program from which they are transferring. The program from which the student is seeking to transfer must be accredited. Advanced placement is determined by equivalency of course work, comparability of curricula, and space availability. Students may attain advanced standing through transfer of credit from regionally accredited colleges and universities (for grades of C or higher), credit by examination, or a portfolio review process. Credit for such courses and applicability to the degree will be determined by the university and the School of Nursing.

Orientation

All students enrolled for the first time in nursing program courses in the School of Nursing are required to attend the nursing orientation program at the beginning of the fall or spring semester. Freshmen and transfer students are expected to attend the campus orientation program.

Ten-Year Limit

Courses in anatomy, physiology, microbiology (for A.S.N./B.S.N.), and life span development (for the A.S.N. program only) must have been completed within 10 years prior to the semester in which a basic student begins the nursing course work. Two options are offered to a student who completed these courses more than 10 years prior to enrollment: (1) repeat the course or; (2) take a challenge examination if an examination is authorized by the academic unit sponsoring the course. This policy does not apply to those who hold a current R.N. license.

Practicum/Clinical Absence Policy

It is expected that students will participate in all required (regularly scheduled or substituted) practicum/clinical experiences. Failure to complete all regularly scheduled or substituted experiences places students at risk for not meeting course objectives. Students absent from more than 20 percent of scheduled practicum/clinical experience will receive a failing grade, or be allowed to withdraw according to IU School of Nursing Corridor Policy VI-A-12, or take an incomplete according to university policy dictated by the timing of and the circumstances surrounding the absences. (Policy VI-A-28)

Academic Appeals

Problems related to a student's academic and professional status that emerge during enrollment in either undergraduate nursing program are handled through a campus-specific appeals process. Students wishing to appeal any matter related to their academic status should consult their academic counselor for information regarding this appeal process. Students requesting an exception to policy must petition for a waiver. Students initiate the appeal process by filing a formal appeal with the Student Affairs Committee.

Eligibility for Licensure

Those who apply for licensure examination as a registered nurse in the state of Indiana are required to submit to the Indiana State Board of Nursing (ISBN) written evidence, confirmed by oath, that they (1) have not been convicted of any act that would

constitute grounds for disciplinary sanction under the Indiana State Board rules and regulations or of any felony that has direct bearing on their ability to practice competently (note that relevant convictions include the possession and use of drugs or controlled substances); (2) have completed a high school course of study or its equivalent as approved by the appropriate educational agency; and (3) have completed all graduation requirements at a state-accredited school of nursing.

Each student is responsible for meeting licensure application deadlines. Students wishing to be licensed in another state must contact that state's board of nursing directly. Students are responsible for processing all required licensure-related forms and applications and for meeting all state requirements for licensure. A graduate is eligible to schedule a date to take the computerized licensure examination once the State Board of Nursing has cleared the graduate to do so.

International students and graduates of foreign nursing programs should contact the Indiana State Board of Nursing for licensure requirements specific to them if they wish licensure in this state.

Intercampus Transfer

Nursing students in good academic standing may seek intercampus transfer by petitioning the Admission, Progression, and Graduation (APG) Committee at least one semester in advance of the requested transfer. Intercampus transfer requests will be evaluated individually on the basis of the student's academic record and on the availability of faculty, a space in program, and facilities to meet the student's needs and program objectives.

Transfers from Other Universities or Colleges

Students must be in good academic standing to be considered for transfer as a pre-nursing or nursing student. Students wishing transfer must petition the APG Committee for acceptance. Approval is based on curriculum compatibility, space, resources, progression, and graduation requirements. Students should see an academic counselor at their current university or college prior to making transferal requests.

Professional Practices, Internships, Honors at School Level

Honors and Awards

Students have the opportunity to be recognized for academic excellence both during their program and at graduation. Full-time nursing students will be placed on the Dean's List for each semester in which they earn a grade point average (GPA) of 3.5 or higher. Part-time students are eligible for the Dean's List after the completion of 12 credit hours, and for each semester they have accumulated an additional 12 credit hours of course work with a GPA of 3.5 or higher.

B.S.N. and A.S.N. candidates who are in the top 10 percent of their graduating class and who have demonstrated a high level of academic achievement may be selected to graduate with academic distinction. To be eligible, A.S.N. students must have completed at least half of the credit hours for their degree at IU, while B.S.N. students must have completed a minimum of 60 credit hours at IU. Grade point averages used in determining the category of academic distinction awarded are:

3.83-4.00—Highest Distinction

3.66-3.82—High Distinction

3.50-3.65—Distinction

A GPA used to determine distinction is calculated from all grades in courses up to and including the seventh semester (B.S.N.) or the third semester (A.S.N.) taken at IU. The GPA does not include transfer grades, special credit, and open electives, but does include grades received in courses that are repeated because of program stipulations.

Awards and honors are also given to recognize outstanding student performance. Students interested in specific awards should see an academic counselor for a list of available awards, along with eligibility criteria.

School Awards and Scholarships

Scholarships	Program		Campus		
	B.S.N.	A.S.N.	IUPUI	IUPUC	IUB
Mollie Ward Greist, R.N.	X	X	X		
Susan Kay Nevins	X	X	X	X	X
Harman and Frances Deen Pugsley	X	X	X	X	X
Florence Nightingale	X	X	X	X	X
Diane Groff Memorial	X	X	X	X	X
Ruth Orum-Orgain	X	X	X	X	X
Garnet Beck-Benzel	X	X	X	X	X
Jean L. Coffey Webster	X	X	X	X	X
Kennedy-Huffman	X	X	X	X	X
Jessie I. Cross	X	X	X	X	X
Judith Kernohan-Burger	X		X	X	X
Leona Meyer-Shedd	X	X	X	X	X
Betty Porter Anderson	X		X	X	X
Georgia Belle Nyland	X	X	X	X	X
Alida E. Kneisel	X	X	X	X	X
Harriett Becker	X		X	X	X
Barbara Dailey	X	X	X	X	X
Howard L. Keach	X	X	X	X	X
Mary J. Fulk-Kopsch	X		X	X	X
Esther Fulk-Ross	X		X	X	X
Archie M. Koon and Eleanor Williamson Koon	X	X			X
Clara Harman-Pugsley	X	X	X	X	X
L. Grace Anderson	X	X	X	X	X
Melba Schumacher	X	X	X	X	X
Betty Kramer	X	X	X	X	X
Frances G. Lehmann	X		X	X	X
Lois Latshaw	X	X	X	X	X
Shirley Crutchfield Mehleck	X	X	X	X	X
Marcy Smith Critical Care	X	X	X	X	X
Tri Chi Nursing	X	X	X	X	X
Leona Adam/Frances Orgain	X	X	X	X	X
IARCH International Nursing Fund	X	X	X	X	X
Propylaeum Historic Foundation	X		X		
Nursing 2000	X	X	X	X	X
Awards	Program		Campus		
	B.S.N.	A.S.N.	IUPUI	IUPUC	IUB
Esther Marie Kelley Award		X	X		
Terry and Kellie Self Recognition Award			X	X	
Lavern V. Sutton Award	X	X	X		
Ethel McCaffrey Award	X		X		
Grossman Awards	X	X	X	X	X
Dotaline E. Allen Award	X		X	X	X
Dorcas Rock Brewer Award	X		X		
Lillian G. Stokes Award	X	X			
Lillian Wald Award for Clinical Excellence in Community Health Nursing	X		X		
Profiles in Courage Award	X	X	X		
Spirit of Nursing Award	X	X	X		
Jacqueline Beretta Dwyer Award	X		X		
Michelle A. White Award	X		X		
Gerry Jacobsen Award	X	X			
Irene & Nathaniel Aycock	X		X		
Vernon & Mary Jane Shepherd	X	X	X		
Ambassador in Nursing	X		X		

Please contact the Office of Educational Services, (317) 274-2806, for details on scholarships and awards.

Associate of Science in Nursing (A.S.N.)

The School of Nursing will suspend admission to the A.S.N. program. The last class to be admitted to this program will be accepted fall 2002 for the spring 2003 semester. The Columbus campus (IUPUC) will still admit L.P.N. students to the L.P.N. to A.S.N. Mobility Option.

Philosophy Statement

The Associate of Science in Nursing Degree Program seeks to educate individuals as entry-level practitioners of nursing. Graduates of this program are prepared with the knowledge and skills to provide direct care to individuals within the family and community context. Care is provided in various structured and semi-structured settings within the continuum of health care. The curriculum provides students with facts, principles, concepts, and skills from general education and nursing that serve as the basis for nursing practice within a culturally sensitive environment.

A graduate of the Associate of Science in Nursing Degree Program is expected to demonstrate competency in being a critical thinker; an effective communicator who listens actively and responds appropriately to messages being transmitted; a culturally competent person who recognizes and respects differences within and between groups of people; a competent provider of nursing care; a conscientious practitioner who practices within the legal and ethical parameters of nursing; and an accountable and responsible manager of care. Graduates of the Associate of Science in Nursing Degree Program are able to give direct care in collaboration with clients, families, and other members of the health care team to achieve therapeutic outcomes. The competencies are consistent with the American Nurses' Association's Standards of Nursing Practice and the Code of Ethics.

Graduates recognize lifelong learning as essential both to their continued growth as registered nurses and to the promotion of the profession of nursing within a changing health care environment.

Purpose

The purpose of the A.S.N. Program is to educate graduates who will competently fill entry-level staff nursing positions. The program is designed to meet the learning needs of students who are pursuing an initial career in nursing, as well as students who wish to change their career goals. Graduates of the associate degree program are prepared to provide nursing care to individuals in a diverse range of health care settings.

Student Outcomes

The graduate of the Associate of Science in Nursing Program will be expected to be:

- A critical thinker who is able to evaluate ideas of self and others, and to apply reason in problem solving.

- An effective communicator who is able to listen actively and respond appropriately to the message transmitted.
- A culturally competent person who recognizes and respects differences within and among groups of people.
- A competent provider of nursing care consistent with the Indiana Nurse Practice Act and with Professional Standards set by the American Nurses' Association.
- A conscientious practitioner who practices within the legal and ethical parameters of professional nursing.
- An accountable and responsible manager of care who functions in health care settings where policies and procedures are specified and professional consultation is available.

This program is offered on the IUPUI campus, and applications for admission to the A.S.N. Program should be filed at least one semester in advance of the desired time of enrollment. Application for admission to Indiana University may be obtained from the IUPUI Office of Admissions, 425 University Boulevard, Room 129, Indianapolis, IN 46202-5143. Prospective students should know the requirements for admission to the associate of science program, the curriculum requirements, the course sequencing, and the requirements for the degree. *Students are responsible for meeting all degree requirements.*

The admission process is selective, and acceptance depends on the number of applicants and the applicant's ability to compete academically in the pool of applicants. When the number of qualified applicants exceeds space available, the final decision about who will be admitted is based on the grade point average (GPA) computed for all grades earned in required A.S.N. courses, excluding FX grades. (The FX option allows students to replace an F grade by repeating the course. This option may be exercised no more than once for any given course and for no more than three courses.) Applicants accepted for admission to the A.S.N. Program must enroll in nursing course work at the time designated by the School of Nursing. Students who fail to do so must reapply to the program with no guarantee of readmission.

Students who have been enrolled in another university must have an IUPUI credit transfer review prior to applying for admission. If enrolled at another university for the term prior to enrollment at IUPUI, the transfer applicant must be in good academic standing, and must have completed the term with a 2.0 GPA, as well as having a cumulative grade point average of at least a 2.0 (on a 4.0 scale). If a student has 25 or fewer transferable semester hours, the high school records should reflect compliance with freshman admission requirements. Students who do not have an overall grade point average of 2.0, but have recently and successfully completed a minimum of twelve semester hours with no less than a 2.5 grade point average, may be considered on an exception basis depending on the number of applicants and on available space.

Admission occurs in the fall and spring semesters. Students may request admission through one of the following three category headings:

Category I (First Priority)

Individuals applying to the A.S.N. Program without post high school credit and who meet the following criteria may be considered for admission as Category I applicants. (Individuals holding a general equivalency diploma [GED] or those who do not meet Category I criteria must apply as Category II or Category III applicants.)

Admission Criteria

1. Graduate in the top 25 percent of high school class or rank in the top 25 percent of high school class (high school class standing).
2. Achieve a cumulative high school grade point average of 3.0 on a scale of 4.0.
3. Achieve either a minimum score of 1100 on the Scholastic Aptitude Test with a minimum of 580 on the verbal and 520 on the math. (SAT-1, SAT taken prior to April 1995 must be recalculated—consult with counselor), or a minimum composite score of 24 on the American College Test (ACT).
4. Complete Indiana University expectations for 28 semester hours of college preparatory courses, including:
 - a. 8 semesters of English composition or literature (one semester each of speech and journalism may be included);
 - b. 4 semesters of social science (economics, government, history, psychology, or sociology);
 - c. 6 semesters of mathematics, including geometry and first and second-year algebra;
 - d. 2 semesters of laboratory science (biology, chemistry, or physics). The School of Nursing highly recommends high school chemistry and biology;
 - e. 8 semesters in some combination of foreign language, computer science, or additional mathematics, laboratory science, social science, or English courses. Four semesters of foreign language is strongly recommended, as are courses to develop writing skills.
5. Achieve grades of B or above in all high school laboratory courses, as well as grades of C or above in required semesters of college preparatory courses.
6. Demonstrate math proficiency, as specified by the IU campus to which the student is applying. (Policy U-VI-A-2)

Category II (Second Priority)

Individuals who do not meet Category I criteria may apply under Category II if they meet the following criteria. Those holding a General Equivalency Diploma (GED) are eligible to apply as a Category II candidate. Priority will be given to individuals whose permanent addresses are within the defined regional area served by the campus to which they are making application, and/or who have completed a minimum of six credits of required general education courses on the campus to which they are applying. In addition, they must:

1. Complete at least 11 required A.S.N. general education credit hours prior to program application. A minimum of 4 credit hours must be taken in the natural sciences (anatomy, physiology, or microbiology) and a minimum of 3 credit hours must be from the social sciences

(Introduction to Psychology, Introduction to Sociology, or Life Span Development). All stipulated "developmental courses" must be completed prior to applying to the A.S.N. program.

2. Earn a grade of C (2.0) or better in each required A.S.N. general education course taken prior to program application. (Note that each required course may be repeated only one time in an attempt to achieve a grade of C or better.)
3. Repeat no more than three (3) required A.S.N. general education courses. Of the three (3) courses, only two (2) failures will be allowed in science course work. Any grade below a C is considered unsatisfactory (failing). All unacceptable course work must be completed by the second attempt with a grade of C or higher
4. Achieve a minimum pre-nursing GPA of 3.0 and a cumulative grade point of 3.0 on all course work completed at IU.
5. Demonstrate math proficiency as specified by the campus to which the student is applying. (Policy U-VI-A-2)

Category III (Third Priority)

Any students who do not clearly meet the criteria for Category I or II are invited to apply under Category III if they meet the following criteria:

1. Complete at least 11 required A.S.N. general education credit hours prior to program application. A minimum of 4 credit hours must be taken in the natural sciences (anatomy, physiology, or microbiology) and a minimum of 3 credit hours must be from the social sciences (Introduction to Psychology, Introduction to Sociology, or Life Span Development). Additionally, students must receive a grade of C or higher in English Composition before applying. All stipulated "developmental courses" must be completed prior to applying to the A.S.N. program.
2. Achieve a grade of C (2.0) or better in each required A.S.N. general education course taken prior to program application. (Note that each required course may be repeated only one time in an attempt to achieve a grade of C or better.) This applies to all course work completed at IU or another university.
3. Repeat no more than three (3) required A.S.N. general education courses. Of the three (3) courses, no more than two (2) science courses may be repeated. (One science course and corresponding lab are considered one course.) Any grade below a C is considered unsatisfactory (failing).
4. Achieve a minimum pre-nursing GPA of 2.3 and a cumulative grade point average of 2.0 for all course work completed at IU or another university.
5. Demonstrate current math proficiency as defined by the campus to which the student is applying. (Policy U-VI-A-2)

Students must formally accept or decline admission. Students who decline admission and later reapply must compete with the applicant pool existing at the time of reapplication. *Students who refuse an admission invitation two times are ineligible to be considered for future admission.*

A student's admission offer will be revoked if his or her GPA falls below 2.0 or a grade below C (2.0) is earned in any general-education requirement between the time of application and actual enrollment in nursing courses. Any student having questions about this policy may contact the nursing academic counselor.

Students withdrawing from course work within the first semester must reapply for competitive review. Students who withdraw have one opportunity to seek readmission. Reapplication must be within a time frame consistent with the school's progression policy.

Academic Expectations/Progression

After admission to the A.S.N. program, placement in nursing courses for the academic year is based on the following priority ranking:

1. Full-time, regular progression students.
2. Part-time, regular progression students.
3. Students who have interrupted their studies but are in good academic standing.
4. Students who have withdrawn from one or more nursing courses.
5. Students who have failed and successfully repeated a nursing or required general education course.
6. Students who need to repeat either a nursing course or a general education prerequisite or corequisite.
7. Students who have been dismissed and reinstated.
8. Intercampus transfer students.
9. Transfer students from other A.S.N. programs according to admission, progression, and graduation guidelines.

If additional criteria are needed to determine placement, the admission committee considers the date of becoming out of sequence, and the grade point average (GPA). (See an academic counselor with any questions about these requirements.) Students who interrupt their studies for any reason are considered out of sequence and will be accommodated according to the above priority ranking on a space-available basis for the remainder of course work to be completed.

An A.S.N. student must have a nursing GPA exceeding 1.65 to enter the second semester of nursing course work, and a cumulative GPA of *at least* 2.0 to enter the third semester of nursing course work. A student who fails to receive a minimum grade of C (2.0) or an S (Satisfactory) in a nursing course must petition the Admission, Progression, and Graduation Committee to continue in the program.

An A.S.N. student's failure to register in each sequential semester, excluding summer sessions, constitutes an interruption in a student's program. Students who have interrupted their program of study for any reason are required to submit a written request to reenter the program to the chairperson of

the Corridor A.S.N. Admission, Progression, and Graduation Committee. This request must be received by July 1 for fall semester, April 1 for summer, and October 1 for spring. All requests for reentry will be evaluated on the basis of the availability of resources. *Reentry of students who have interrupted their study for any reason is not guaranteed.* Students who reenter must adhere to the policies and curriculum of the School of Nursing in effect at the time of reentry.

Students may progress to the next semester of courses upon the successful completion of *all* prior semester nursing courses designated on the campus enrolled. Students wishing exception to this practice must petition the admission, progression, and graduation committee.

Academic Policies and Procedures

Dismissal and Reinstatement

Out of Sequence

Students who have interrupted their progression for any reason are considered to be out of sequence. Out-of-sequence students will be placed in required course work on a space-available basis. Out-of-sequence students are placed in required nursing courses according to the priority ranking under "Academic Expectations/Progression." Once progression is interrupted, program completion dates cannot be guaranteed, although every reasonable effort will be made to facilitate progression. The Admission, Progression, and Graduation (APG) Committee has the responsibility for determining student placement in courses. Curriculum changes during the period of interrupted progress toward the degree may result in review and revision of a student's degree requirements based on evaluation of individual situations.

Dismissal

A student will be dismissed from the program when, in the judgment of the APG Committee, there is lack of progress toward the degree. Evidence will include, but not be limited to the following:

1. Failure to achieve a nursing GPA of 1.65 on completing the first semester of nursing course work or of 2.0 prior to entering the third semester of nursing course work.
2. Failure to achieve a 2.0 GPA in any two consecutive semesters or to maintain a cumulative GPA of 2.0 in the second year of the program.
3. Failure to achieve a minimum grade of C (2.0) or S (Satisfactory) in any one nursing course (didactic or practicum) or general education course after two attempts.
4. Failure to achieve a minimum grade of C (2.0) or S (Satisfactory) in any two nursing courses (didactic or practicum) on the first attempt.
5. Failure to meet probationary stipulations in the semester following the assignment of probation.
6. Failure to meet School of Nursing's Essential Abilities with or without specified accommodations.

7. Inability to conduct oneself in a professional fashion consistent with the American Nurses' Association *Code of Nurses* or IUPUI's *Code of Student Rights, Responsibilities, and Conduct*. In particular, falsification of records and reports, plagiarism, or cheating on an examination, quiz, or any other assignment is cause for dismissal.
8. Failure to demonstrate personal integrity or conduct befitting the profession of nursing.

The dismissal of any student is contingent upon review by the APG Committee.

Reinstatement

Students who desire reinstatement in a program must submit a written request to the chairperson of the APG Committee. They must submit this request at least one semester prior to the requested date of reinstatement. Reinstatement is not guaranteed and no student may be reinstated more than once. Reinstatement by one IU campus is not binding on another IU campus. Reinstatement requests will be evaluated individually on the basis of academic standing, potential for progress toward the degree, availability of resources, and satisfactory resolution of any conditions existing at the time of withdrawal or dismissal. Students who are reinstated must adhere to policies in effect at the time of reinstatement. A reinstated student will be dismissed upon failure (grade of C- or lower) of one additional required course.

Degree Requirements

Students are responsible for meeting all degree requirements. All candidates for the degree of Associate of Science in Nursing must fulfill the following requirements:

1. Completion, with a grade of C or higher, of a minimum of 41 credit hours of required nursing courses and 27-29 credit hours in required general-education courses for the A.S.N. degree.
2. Achievement of a minimum curriculum GPA of 2.0 on a 4.0 scale.
3. Completion of the degree requirements within four years of the first enrollment in nursing course work. Students who fail to comply with this requirement need to petition the APG Committee for an extension. Extension decisions will be reviewed in terms of current curriculum requirements.
4. Completion of a minimum of 51 percent of courses in the nursing major on the IU campus that grants the degree.
5. Application for the degree at the beginning of the final semester.
6. Completion of the RN-CAT and Pre-RN Review course.

The student must file an Intent to Graduate application in the Office of Educational Services. The School of Nursing is not responsible for the student's certification for the degree if the student fails to file the application.

School Requirements

Sample Curriculum Plan

Students admitted through Category I generally complete A.S.N. degree requirements in the sequence shown below. Students admitted through Category II or Category III must complete each required general-education course with or before the program semester in which it appears below. Please maintain contact with your academic counselor to ensure that degree requirements are completed as required.

Course numbers in () indicate course numbers on the IUPUI, IUPU Columbus, and IU Bloomington campuses, respectively.

Year One

First-Semester Courses	Credit Hours
Human Anatomy (N261, A215)	5
Microbiology (J210, N251, M200/M215)	4
English Composition (W131)	3
A136 Introduction to the Science and Technology of Nursing	4
A137 Application of the Science and Technology of Nursing	3
Total Credits	19

Second-Semester Courses	Credit Hours
Human Physiology (N217, P215)	5
Introductory Psychology (B104 or B105, P101 or P102)	3
A146 Care of the Individual: Alterations in Nutrition, Elimination, and Metabolic Functions	3
A147 Nursing Practicum: Alterations in Nutrition, Elimination, and Metabolic Functions	3
A148 Care of the Individual: Alterations in Comfort and Function	2
A149 Nursing Practicum: Alterations in Comfort and Function	2
Total Credits	18

Year Two

First-Semester Courses	Credit Hours
Life Span Development (B310, P214)	3
Introductory Sociology (R100, S100 or S210)	3
A276 Care of the Individual: Alterations in Activity—Exercise	3
A277 Nursing Practicum: Care of the Individual—Alterations in Activity—Exercise	3
A278 Care of the Individual: Alterations in Cognition, Perception, and Interaction	3
A279 Nursing Practicum: Care of the Individual—Alterations in Cognition, Perception, and Interaction	2
Total Credits	17

Second-Semester Courses

Guided Communication elective (See counselor for guidance)	3-4
A286 Care of the Individual: Beginning and Evolving Families	3
A287 Nursing Practicum: Care of the Individual—Beginning and Evolving Families	3
A288 Care of the Individual within a Family and Community Context	2
A289 Nursing Practicum: Care of the Individual within a Family and Community Context 3	
A290 The Discipline of Nursing: Role Transitioning	2
Total Credits	16-17

L.P.N. to A.S.N. Mobility Option

This mobility option is available on the Columbus campus to licensed practical nurses who have graduated from an approved L.P.N. program. Those interested in applying to this option must meet the following criteria:

1. Admission to the university.
2. Documentation of current practical nurse license.
3. Documentation of the completion of 12 general-education credit hours required in the A.S.N. program. Two biological science courses and one psychology course must be taken as part of this requirement. Students must achieve a grade of C or higher in all required courses.

Admission information and applications are available from the Columbus academic counselor. Acceptance is based on academic achievement, experience, and demonstrated ability to succeed in the program. The number of students accepted each year or semester is based on resources. Licensed practical nurses applying for admission to the A.S.N. program are held to the same curriculum, student policies, standards, and expectations of that program.

Academic Expectations/Progression

L.P.N. students are required to complete the L.P.N. Transition to A.S.N. Practice (A150) with a grade of C or higher. This transition course acts as bridge linking prior knowledge and skills with new knowledge and skills. Students will be permitted two attempts to complete this course with a C or higher. A student unsuccessful in obtaining a C may not progress further in this option, but may apply to the A.S.N. program for competitive review with all other applicants with no prior nursing education. Academic performance in the transition course will not count as an unsuccessful course attempt for those L.P.N. students admitted as basic students. (Students must also successfully complete all pre- and co-requisite general education course work prior to advancing.)

All probation, dismissal, and reinstatement policies that govern A.S.N. program majors are also pertinent to L.P.N. students.

Advanced Placement

Students who have successfully completed A150 L.P.N. Transition to A.S.N. Practice with a grade of C (2.0) or higher may enter the second year of the associate degree program and continue completing degree requirements. Upon completion of A150, special credit will be awarded for the following courses:

A136 Introduction to the Science and Technology of Nursing
A137 Application of the Science and Technology of Nursing
A146 Care of the Individual: Alterations in Nutrition, Elimination, and Metabolic Functions
A147 Nursing Practicum: Alterations in Nutrition, Elimination, and Metabolic Functions
A148 Care of the Individual: Alterations in Comfort and Function
A149 Nursing Practicum: Alterations in Comfort and Function

This special credit will be posted on a student's IU transcript upon completion of appropriate forms.

School Requirements

Sample Curriculum Plan

Students apply to one of two track options designed to facilitate degree completion.

Track Option 1—One-Year Plan

A.S.N. Semester 3 Courses (Fall)	Credit Hours
A276 Care of the Individual: Alterations in Activity—Exercise	3
A277 Nursing Practicum: Care of the Individual—Alterations in Activity—Exercise	3
A278 Care of the Individual: Alterations in Cognition, Perception, and Interaction	3
A279 Practicum: Care of the Individual—Nursing Alterations in Cognition, Perception, and Interaction	2
A290 The Discipline of Nursing Role Transitioning	2
A.S.N. Semester 4 Courses (Spring)	Credit Hours
A286 Care of the Individual: Beginning and Evolving Families	3
A287 Nursing Practicum: Care of the Individual—Beginning and Evolving Families	3
A288 Care of the Individual within a Family and Community Context	2
A289 Nursing Practicum: Care of the Individual within a Family and Community Context	3

Track Option II—Two Year Plan

Fall I		Credit Hours
A276 Care of the Individual: Alterations in Activity—Exercise		3
A277 Nursing Practicum: Care of the Individual—Alterations in Activity—Exercise		3
Spring I		Credit Hours
A286 Care of the Individual: Beginning and Evolving Families		3
A287 Nursing Practicum: Care of the Individual—Beginning and Evolving Families		3
Fall II		Credit Hours
A278 Care of the Individual: Alterations in Cognition, Perception, and Interaction		3
A279 Nursing Practicum: Care of the Individual—Alterations in Cognition, Perception, and Interaction		2
A290 The Discipline of Nursing Role Transitioning		2
Spring II		Credit Hours
A288 Care of the Individual within a Family and Community Context		2
A289 Nursing Practicum: Care of the Individual within a Family and Community Context		3

Bachelor of Science in Nursing (B.S.N.)

Philosophy Statement

Baccalaureate nursing education provides a broad foundation in the sciences and liberal arts, which is necessary for preparing professional nurses who are capable of practicing in a competent and responsible fashion as informed citizens in a dynamic and diverse society. Graduates of the baccalaureate nursing program are expected to demonstrate competency in being a critical thinker; a culturally competent person; a knowledgeable coordinator of community resources; a politically aware professional; a beginning practitioner whose actions are consistent with professional legal and ethical standards; an effective communicator; a competent provider of health care; and a person who exemplifies a positive public image. These competencies are consistent with the 1998 “Essentials of Baccalaureate Education for Professional Nursing Practice,” established by the American Association of Colleges of Nursing, the 1989 “Standards of Nursing Practice,” established by the American Nurses’ Association (ANA), along with the ANA 1985 Code of Ethics. Baccalaureate graduates assist individuals, families, and communities in attaining mutually established health goals and in facilitating the highest level of functioning for individuals, families, and communities toward the

maximization of their health potential. Baccalaureate education must prepare graduates to be knowledgeable workers and processors of information, and to navigate complex health care systems using available technologies as they design and develop, independently or in conjunction with others, more efficient and effective approaches to the delivery of health care services.

Purpose

The baccalaureate program offers a creative curriculum for the education of professional nurses competent in meeting the current and future health needs of society. The curriculum prepares graduates to function as practitioners in acute and long-term care, community settings, home care, and other nontraditional settings, and also provides a foundation for leadership positions and graduate study.

The graduate of the B.S.N. program possesses a broad knowledge of the humanities, the biological and social sciences, and nursing. As a beginning practitioner, the graduate applies well-developed problem-solving skills in caring for individuals, families, and communities.

Student Outcomes

The following outcomes are expected of a graduate of the baccalaureate program:

Critical Thinker Someone who is able to demonstrate intellectual curiosity, rational inquiry, problem-solving skills, and creativity in framing problems.

Culturally Competent Person Someone who can provide holistic nursing care to a variety of individuals, families, and communities.

Knowledgeable Coordinator A coordinator of community resources who facilitates individual, family, and community access to resources necessary for meeting health care needs.

Politically Aware Person Someone who participates in the profession and the practice of nursing with a global perspective.

Conscientious Practitioner An individual who practices within the ethical and legal framework of the nursing profession.

Effective Communicator Someone who is able to share accurate information.

Therapeutic Nursing Intervention/Competent Care Provider A competent provider of health care who assumes the multiple role dimensions in structured and semi-structured health care settings.

Professional Role Model A person who promotes a positive public image of nursing.

Responsible Manager Someone who balances human, fiscal, and material resources to achieve quality health care outcomes.

The B.S.N. program is offered on the IUPUI and IU Bloomington campuses. Prospective students should acquaint themselves with curriculum requirements,

course sequencing, and other degree requirements, along with the requirements for admission to the B.S.N. program on either campus. *Students are responsible for meeting all degree requirements.*

Admission Criteria

Students seeking admission to the nursing major must meet the following criteria:

1. Admitted to Indiana University as a degree-seeking student.
2. Maintain a minimum Indiana University cumulative grade point average (GPA) of 2.3 on a 4.0 scale. Does not include transfer or FX courses.
3. Complete general education courses required for admission on the campus to which the student applies. Required courses and credit hours needed for application may vary from campus to campus depending on course availability and general campus requirements. Students are responsible for being informed of admission expectations on the campus to which they seek admission. Completed course work should include a minimum of 8 completed credit hours or 2 courses in the critical/analytical cluster. One completed course in this cluster should be Anatomy. However, science requirements are campus specific and based on campus general education requirements and course availability and accessibility. The remaining credit should include English and Psychology. It is an expectation that students demonstrate math proficiency as defined on the campus to which they are applying, and that students have completed high school chemistry or can demonstrate equivalency.
4. Demonstrate a pre-nursing admission grade point average (GPA) of 2.5 on a 4.0 scale for all completed course work required for admission. The nursing grade point average is calculated on all completed courses required for the B.S.N. degree. Grades earned in transfer courses accepted and applied to required general education credit hours will count in the calculation of the admission GPA. Repeated attempts to pass courses with a grade of C or higher will also be calculated in the GPA as a C (2.0) regardless of the grades received in the repeated courses. FX grades will not be counted. (See Policy VI-A-9: Calculating Grade Point Averages for Students Applying to the A.S.N. and B.S.N. Programs.)
5. Designate which courses will meet the cluster requirements where course choice is an option. Courses designated for the nursing major may be repeated only one (1) time. Students must successfully complete all courses for the degree with a C or better by the second attempt.
6. Complete all required course work by established deadline date. This includes independent study, correspondence course work, and courses for which students have received an Incomplete (I). Students wishing to transfer required course work from a university other than Indiana University must be in good academic standing at that university, and have achieved a grade of C (2.0) or

higher in courses for which transfer is being requested.

7. Repeat no more than three required cluster courses required for B.S.N. degree. Of the three (3) courses, only two (2) failures will be allowed in science course work. (One science course and its corresponding lab are considered one course.) A student must achieve a grade of C (2.0) or higher in all program requirements. This criterion also applies to any student wishing to transfer required cluster courses from a university other than Indiana University.
8. Submit to the School of Nursing an official credit transfer report (CTR) for all work being transferred from a university other than Indiana University.
9. Submit program application by published deadline. Applications received after the published deadline will be considered at the discretion of the faculty. Students may reapply to the Bachelor of Science in Nursing Program in a subsequent semester if they maintain eligibility.

Applicants who do not meet one or more of the above criteria may request special consideration by the campus Admission, Progression, and Graduation Committee to which admission is requested. Consult campus policies and practices to determine the appropriate process to be followed on the campus you wish to attend.

The nursing faculty of the campus to which the student is seeking admission has the responsibility and authority to select applicants for admission to the baccalaureate nursing program. The faculty reviews all qualified applicants and selects those for admission that have:

1. Demonstrated academic achievement; and
2. Displayed individual characteristics as determined by each campus. Students should check with the campus of their choice for additional requirements.

Priority for admission will be given to students applying to the campus on which they have completed more than half of the program requirements. Transfer students will be considered for admission based on availability of space. Students will be admitted to the baccalaureate nursing program for a specific semester and are expected to enter the program that semester. Students must formally accept or decline admission. Students not entering that specific semester must reapply on a competitive basis for a subsequent semester. Students will not be considered for further admission if they have declined an admission offer two times. (Policy VI-A-16)

Applicants receive priority consideration for admission if they have completed the majority (51%) of their prerequisite general education course work on the IUPUI, IUPU Columbus, or IU Bloomington campus. If additional spaces are available, the next priority is given to students who have completed the majority of their course work on another IU campus. Students transferring the majority of prerequisite course work from a non-IU school are accorded lowest priority for admission.

Academic Expectations/Progression

After admission to the B.S.N. program, placement in nursing courses for the academic year is based on the following priority ranking:

1. Full-time, regular progression students.
2. Part-time, regular progression students.
3. Students who have interrupted their studies but are in good academic standing.
4. Students who have withdrawn from one or more nursing courses.
5. Students who have failed and successfully repeated a nursing or required general education course.
6. Students who need to repeat either a nursing course or a general education prerequisite or corequisite.
7. Students who have been dismissed and reinstated.
8. Intercampus transfer students.
9. Transfer students from other A.S.N. or B.S.N. programs according to admission, progression, and graduation guidelines.

If additional criteria are needed to determine placement, the admission committee considers the date of becoming out of sequence, and the grade point average (GPA). (See an academic counselor with any questions about these requirements.) Students who interrupt their studies for any reason are considered out of sequence and will be accommodated according to the above priority ranking on a space-available basis for the remainder of course work to be completed.

A B.S.N. student's failure to register in each sequential semester, excluding summer sessions, constitutes an interruption in a student's program. Students who have interrupted their program of study for any reason are required to submit a written request to reenter the program to the chairperson of the Corridor B.S.N. Admission, Progression, and Graduation Committee. This request must be received by July 1 for fall semester, April 1 for summer, and October 1 for spring. All requests for reentry will be evaluated on the basis of the availability of resources. *Reentry of students who have interrupted their study for any reason is not guaranteed.* Students who reenter must adhere to the policies and curriculum of the School of Nursing that are in effect at the time of reentry.

Students may progress to the next semester of courses upon the successful completion of *all* prior semester nursing courses designated on the campus enrolled. Students wishing exception to this practice must petition the admission, progression, and graduation committee.

Academic Policies and Procedures

Dismissal and Reinstatement

Dismissal

A student will be dismissed from the program when, in the judgment of the Admission, Progression, and Graduation (APG) Committee on the campus of enrollment, there is lack of progress toward the degree. Lack of progress will include, but not be limited, to the following:

1. Failure to achieve a 2.0 semester grade point average in any two consecutive semesters.
2. Failure to earn a grade of C (2.0) or S (Satisfactory) in any two required nursing courses (didactic or practicum/clinical) on the first attempt.
3. Failure to achieve a minimum grade of C (2.0) in any required nursing didactic course or S (Satisfactory) in any required nursing practicum/clinical course by the second attempt.
4. Failure of more than three general education courses required for the A.S.N. or B.S.N. degree. Of the three courses, only two failures will be allowed in science course work. Any grade below a C is considered unsatisfactory (Failing).
5. Failure to meet IU School of Nursing essential abilities expectations.
6. Failure to adhere to the *IU Code of Student Rights, Responsibilities, and Conduct*.

Falsification of records or reports, plagiarism, or cheating on an examination, quiz, or any other assignment is cause for dismissal. (See *IU Code of Student Rights, Responsibilities, and Conduct*.)

The faculty reserves the right to dismiss any student whose personal integrity, health, or conduct demonstrates unfitness to continue preparation for the profession of nursing. Integrity and conduct will be judged according to the standards of the most recent *Code for Nurses* as adopted by the American Nurses' Association.

The dismissal of any student is contingent upon review by the Admission, Progression, and Graduation Committee on the campus of enrollment. *Student dismissal is subject to the appeal process on the campus of enrollment.* (Policy VI-A-18)

Reinstatement

A student who has been dismissed from the School of Nursing for academic failure or any other reason may request reinstatement by petitioning the School of Nursing's Admission, Progression, and Graduation Committee from the campus at which he or she was dismissed. Reinstatement by one campus is not binding on other campuses. This written request must be received by July 1 for fall reinstatement, April 1 for summer reinstatement, and October 1 for spring reinstatement. Reinstatement will be based on faculty recommendations at the time of dismissal, as well as on availability of resources.

Students may progress to the next semester of courses upon the successful completion of *all* prior semester nursing courses designated on the campus enrolled. Students wishing exception to this practice must petition the admission, progression, and graduation committee.

Reinstatement is not guaranteed, and no student may be reinstated more than once. A reinstated student will be dismissed upon failure (a grade of C– or lower) of one additional required course. Students who are reinstated must adhere to the policies and curriculum of the School of Nursing that are in effect at the time of reinstatement.

Degree Requirements

All candidates for the degree of Bachelor of Science in Nursing must fulfill the following requirements:

1. Satisfactory completion of a minimum of 123 credit hours that apply to the degree (credit hour requirements may vary slightly among IUPUI, IU Bloomington, and IUPU Columbus campuses). Credits earned in remedial learning-skill courses and courses that are repeated do not apply toward the degree.
2. Achievement of a minimum cumulative grade point average of C (2.0).
3. Achievement of a grade of C (2.0) or higher in each required course or its equivalent.
4. Removal of all Incompletes, deferred grades, and special credit course grades in nursing courses by three weeks prior to the end of the student's last semester before graduation.
5. Completion of all course work within six years after enrollment in nursing courses for the nursing major.
6. Completion of a minimum of 51 percent of courses in the nursing major on the IU campus that grants the degree.
7. Application for the degree at the beginning of the final semester.
8. Completion of the R.N.-CAT and Pre-R.N.-Review Course.

Honors Option

The honors option for baccalaureate students is intended to give exceptionally talented students the opportunity to engage with select faculty in scholarly work that goes beyond expected course and program activities. Students wishing to pursue Honors study should contact a nursing academic advisor.

School Requirements

Sample Curriculum Plan

In general, the baccalaureate curriculum requires a minimum of four academic years to complete. The baccalaureate curriculum is subject to continuous evaluation and revision. If curriculum changes occur, updated information can be obtained from the academic counselor. The following is an example of a full-time plan of study. Each student will develop, with the assistance of an academic advisor, an individual plan of study that reflects student need, student choices, availability of courses, and specific campus expectations.

Freshman Year*

First-Semester Courses

	Credit Hours
Communications Cluster	3
English Composition	3
Introduction to Psychology	3
Cultural Diversity Cluster	3
Critical/Analytical Cluster	3-4
Total Credits	15-16

Second-Semester Courses

	Credit Hours
Anatomy	5
Introduction to Sociology	3
Critical/Analytical Cluster	3-4
Humanistic Appreciation	3
Total Credits	14-15

Sophomore Year

Third-Semester Courses

	Credit Hours
Physiology	5
B230 Developmental Issues and Health	4
B231 Communication for Health Care Professionals	3
B232 Introduction to the Discipline of Nursing: Theory, Practice, Research	3
Total Credits	15

Fourth-Semester Courses

	Credit Hours
Microbiology	4
B233 Health and Wellness	4
B244/B245 Comprehensive Health Assessment	4
B248/B249 Science and Technology of Nursing	4
Total Credits	16

Junior Year

Fifth-Semester Courses

	Credit Hours
H351/H352 Alterations in Neuro-Psychological Health	5
H353/H354 Alterations in Health I	5
H355 Data Analysis in Clinical Practice and Health Care Research	3
Cultural Diversity Cluster Course	3
Total Credits	16

Sixth-Semester Courses

	Credit Hours
H361/H362 Alterations in Health II	5
H363/H364 The Developing Family and Child	6
H365 Nursing Research	3
Social Competence Cluster	3
Total Credits	17

Senior Year

Seventh-Semester Courses

	Credit Hours
S470/S471 Restorative Health Related to Multi-System Failures	5
S472/S473 A Multi-System Approach to the Health of the Community	5
S474 Applied Health Care Ethics	3
Open Elective (nursing or general education)	3
Total Credits	16

*Successful completion of high school chemistry, and Algebra 1 and 2 required.

Eighth-Semester Courses

	Credit Hours
S481/S482 Nursing Management and Management Practicum	5
S483 Clinical Nursing Practice Capstone	3
S484 Research Utilization Seminar	1
S485 Professional Growth and Empowerment	3
Open Elective (nursing or general education)	3
Total Credits	15

Students interested in part-time study should consult with a nursing academic advisor at the beginning of their academic studies. Students may request part-time study at any point in their progression. Students pursuing part-time study will be placed in courses based on established enrollment ranking, successful completion of prerequisite courses, and availability of courses. Part-time studies must be completed in the six-year time frame for the degree.

Accelerated B.S.N. Mobility Option—For Second Degree

The accelerated mobility option facilitates men and women holding a minimum of a baccalaureate degree in an area other than nursing who now wish to earn a bachelor of science in nursing degree. The accelerated option allows those with a bachelor's degree to apply general education course work toward the completion of the B.S.N. degree if prior general education course work meets the general education requirements for this degree.

The accelerated option requires a commitment to a full-time study plan that will be completed in an 18-month timeframe. At the completion of the program, graduates will receive an Indiana University B.S.N. degree and will be eligible to sit for the Registered Nurse Licensure Examination.

Admission Criteria

Students seeking admission to the accelerated mobility option must meet the following criteria:

1. Must have applied for admission to Indiana University–Purdue University Indianapolis in the fall or spring semester.
2. Must complete a formal application (separate from that to IUPUI) to Indiana University School of Nursing for the Accelerated B.S.N. Mobility Option by March 1.
3. Must have a demonstrated cumulative grade point average of 2.5 on a 4.0 scale for all prior college/university credit.
4. Must have a demonstrated grade point average of 3.0 on a 4.0 scale for all general education course work applied to the B.S.N. degree.
5. Must complete a personal statement that speaks to career goals and abilities to be successful in this study option.
6. Must have completed all required general education courses below:
 - a. 4-5 credit hours of anatomy

- b. 4-5 credit hours of physiology
- c. 3-4 credit hours of microbiology
- d. 3 credit hours of psychology
- e. 3 credit hours of sociology
- f. 3 credit hours of English composition
- g. 3-4 credit hours of life span development
- h. 6 credit hours of communication
- i. 3 credit hours of statistics
- j. 6 credit hours from cultural diversity cluster
- k. 6 credit hours of open electives
- l. 3 credit hours from social competence cluster
- m. 3 credit hours from humanistic appreciation
- n. 8 credit hours from critical/analytical cluster

Curriculum Plan

Summer I	Credit Hours
B244/B245 Comprehensive Health Assessment	4
B233 Health and Wellness	4
Total Credits	8
Summer II	
B232 Introduction to the Discipline	3
B248/B249 The Science and Technology of Nursing	4
Total Credits	7
Fall Semester	
H351/H352 Alterations in Neuro-Psychological Health	5
H353/H354 Alterations in Health I	5
S474 Health Care Ethics	3
Total Credits	13
Spring Semester	
H363/H364 Developing Family and Child	6
H361/H362 Alterations in Health II	5
H365 Introduction to Nursing Research	3
Total Credits	14
Summer I	
S472/S473 Health of the Community	5
Total Credits	5
Summer II	
S470/S471 Restorative Health	5
Total Credits	5
Fall Semester	
S481/S482 Nursing Management	5
S483 Nursing Practice Capstone	3
S485 Professional Growth and Empowerment	3
S484 Research Utilization Project	1
Total Credits	12

R.N. to B.S.N. Mobility Option

This program option is offered on the IUPUI campus. Registered nurses seeking admission to the Indiana University School of Nursing must apply to the IUPUI Office of Admissions, and may apply to the program anytime throughout the academic year. Students who have previously attended an IU campus or who are graduates of the associate program at IU should contact the nursing academic counselor. Unless otherwise specified, all School of Nursing policies pertinent to B.S.N. program majors also apply to registered nurse undergraduate students.

Students who have attended another college or university must forward an official transcript to the

IUPUI Office of Admissions. The Office of Admissions will then generate a credit transfer report (CTR) listing transferable credit. Upon receipt of the CTR, the student should contact the nursing academic counselor at IUPUI who will review the CTR, identify course work to be completed, and explain the process for achieving advanced standing with credit. Credit will be awarded for relevant courses completed at other accredited institutions of higher learning. Students are eligible to enroll in courses upon (1) receiving notification from the Office of Admissions that they have been admitted, (2) verification of a registered nurse license in Indiana, and (3) attainment of a minimum cumulative grade point average (GPA) of 2.5 on a 4.0 scale in all work attempted.

Placement of registered nurse students in nursing courses is based upon space availability, credit hours completed toward the degree, and GPA. It is particularly important for registered nurses to take courses as they become available. Failure to do so may seriously affect progression through the program. Many courses are offered to R.N. students using nontraditional class methods to facilitate ease of mobility. Most R.N. to B.S.N. courses are available on the Web.

Registered nurse students need to consult with the academic counselor for course planning options. Options will vary according to student need, course availability, and resources. Professional Nursing Seminar I and Professional Nursing Seminar II (B304/B404) must be successfully completed prior to enrollment in senior-level courses. These courses act as a bridge linking prior knowledge and skills with the development of new knowledge and skills.

Academic Policies and Procedures

All probation, dismissal, and reinstatement policies that govern B.S.N. program majors are also pertinent to registered nurse undergraduate students. Please refer to the policies explained above.

Advanced Placement

Registered nurse students receive advanced standing in the baccalaureate program following successful completion with a C or better of the two required Professional Nursing Seminar courses. Special credit will be awarded for the following nursing courses once the professional seminar courses are completed.

Courses Being Credentialed	Credits
B230 Developmental Issues and Health	4
B248 Science and Technology of Nursing	2
B249 Science and Technology of Nursing: Practicum	2
H351 Alterations in Neuro-Psychological Health	3
H352 Alterations in Neuro-Psychological Health: Practicum	2
H353 Alterations in Health I	3
H354 Alterations in Health I: Practicum	2
H361 Alterations in Health II	3
H362 Alterations in Health II: Practicum	2
H363 The Developing Family and Child	3
H364 The Developing Family and Child: Practicum	3
S470 Restorative Health Related to Multi-System Failures	3
S471 Restorative Health Related to Multi-System Failures: Practicum	2
Total Credits	34

A grade of S (Satisfactory) will be recorded on the student's transcript for the above courses according to the university credentialing process.

Nursing elective credit for K490/K492 (Clinical Experience in Nursing/Independent Study in Nursing) may be awarded to registered nurses holding valid specialty certification from a nationally recognized nursing organization in an appropriate area of nursing. A total of 2 credit hours may be awarded.

For specific information on advanced-standing procedures, registered nurse applicants should contact their academic counselors.

School Requirements

Sample Curriculum Plan

This curriculum plan is specifically for registered nurse students. This plan can be customized according to student need, interest, and academic goals. Students are expected to complete an individualized curriculum plan prior to beginning the R.N. to B.S.N. nursing courses.

Students must have satisfactorily demonstrated completion of the following courses. (Completion may be demonstrated by course transfer, course validation, or course enrollment.)

- 4-5 semester credits of Anatomy
- 4-5 semester credits of Physiology
- 3-4 semester credits of Microbiology
- 3 semester credits of Introduction to Psychology
- 3 semester credits of Introduction to Sociology
- 3 semester credits of English Composition
- 3-4 semester credits of Life Span Development
- 3 semester credits of a communication course

Summer Session I Courses	Credit Hours
B304 Professional Nursing Seminar I	3
B231 Communication for Health Care Professionals	3
Total Credits	6
Summer Session II Courses	Credit Hours
B404 Professional Nursing Seminar II	3
B244/B245 Comprehensive Health Assessment	4
Total Credits	7
Fall Semester Courses	Credit Hours
H355 Data Analysis in Clinical Practice and Health Care Research	3
Critical/Analytical Cluster	3-4
Cultural Diversity Cluster	3
Total Credits	9-10
Spring Semester Courses	Credit Hours
H365 Nursing Research	3
S472/S473 A Multi-System Approach to the Health of the Community	5
Humanistic Cluster	3
Total Credits	11

Summer Session I Courses

S481/S482 Nursing Management	Credit Hours
S474 Applied Health Care Ethics	5
Total Credits	<u>3</u> 8

Summer Session II Courses

S485 Professional Growth and Empowerment	Credit Hours
Social Competence Cluster	3
Critical/Analytical Cluster	3
Total Credits	<u>3-4</u> 9-10

Fall Semester Courses

S483 Clinical Nursing Practice Capstone	Credit Hours
S484 Research Utilization Seminar	3
Cultural Diversity Cluster	1
Open Electives	3
Total Credits	<u>6</u> 13

Residency Requirements

Thirty hours of residency credit is required for the baccalaureate degree. Registered nurse students must meet this requirement to be eligible for graduation. The following required nursing courses may be used to meet the residency requirement:

	Credits
B304 Professional Nursing Seminar I	3
B404 Professional Nursing Seminar II	3
B244 Comprehensive Health Assessment	2
B245 Comprehensive Health Assessment: Practicum	2
H365 Nursing Research	3
S472 A Multi-System Approach to the Health of the Community	3
S473 A Multi-System Approach to Health of the Community: Practicum	2
S481 Nursing Management	2
S482 Nursing Management: Practicum	3
S483 Clinical Nursing Practice Capstone	3
S484 Research Utilization Seminar	1
S485 Professional Growth and Empowerment	<u>3</u>
Total Credits	30

Students must petition the Admission, Progression, and Graduation Committee for special consideration if they wish to apply nursing transfer credit to meet residency requirements.

R.N. to Master's Degree Mobility Option

Registered nurses who wish to pursue graduate education and whose highest academic credential in nursing is a diploma or an associate degree in nursing may be interested in exploring this educational option. This mobility option allows eligible registered nurses to earn a master's degree in nursing without first earning a baccalaureate degree in nursing. This option may not be the best mobility option for many registered nurses, so it is important to talk with the School of Nursing's academic mobility counselor early

in the decision-making process. Interested nurses should contact the school's Office of Student Services for more information.

Graduate Programs

General Policies for the Graduate School of Nursing, All Campuses

Student Responsibility

Students in the School of Nursing are responsible for meeting with their academic advisors and planning their programs. Students need to acquaint themselves with all regulations and remain currently informed throughout the nursing program. Additional procedures and regulations pertaining to graduate study in nursing are found in the School of Nursing's *Graduate Student Handbook*. All provisions of this bulletin are in effect from the year in which the graduate student enters the nursing program. The Indiana University School of Nursing reserves the right to change the regulations in this bulletin at any time during the period for which it is in effect, and to add, modify, or withdraw courses at any time.

English as a Second Language

Students for whom deficiencies in English have been identified by the IUPUI English Entrance Exam must successfully complete recommended English as a Second Language courses before enrolling in nursing courses required by the major.

Programs of Study

The School of Nursing faculty offer the Master of Science in Nursing (M.S.N.), the Doctor of Nursing Science (D.N.S.), and the Doctor of Philosophy in Nursing Science (Ph.D.). Applications for the D.N.S. degree are no longer accepted. For information concerning these programs of study, write Graduate Programs, Indiana University School of Nursing, 1111 Middle Drive, Indianapolis, IN 46202-5107; or telephone (317) 274-2806. World Wide Web: nursing.iupui.edu.

The Master of Science in nursing program and the Ph.D. in Nursing Science program are offered through the Indianapolis campus. Selected courses from the master's program are offered through the Virtual Indiana Campus (VIC) System to sites around the state and on the Internet. Majors are offered at distant sites to meet student and community needs.

Application

How to Apply

Application forms for graduate programs may be obtained from the Office of Educational Services, School of Nursing 122, 1111 Middle Drive, IUPUI, Indianapolis, IN 46202-5107; e-mail: bmercier@iupui.edu; phone: (317) 274-2806; fax: (317) 274-2996; World Wide Web: nursing.iupui.edu. International applicants must apply to both the School

of Nursing and the IUPUI Office of International Affairs, 620 Union Drive, Room 207, Indianapolis, IN 46202-5167.

Applicants need to (1) present all forms required by the university; (2) submit official, original, sealed transcripts from each post—high school educational institution attended, including colleges, universities, and diploma schools of nursing (compilations on one transcript are not acceptable); (3) submit results from the Graduate Record Examination (GRE) General Test; and (4) pay, as directed, the nonrefundable application fee of \$35 required of all U.S. applicants who are new to Indiana University.

Applications and transcripts are submitted to the Office of Graduate Programs, Indiana University School of Nursing, 1111 Middle Drive, Indianapolis, IN 46202-5107. Fees are paid directly to the university Office of the Bursar or the office specified on the form.

Application Deadlines

Applications for the master's program are considered twice a year. Completed applications are due April 1 and October 1. Applications for the Ph.D. program are considered once a year and are due January 15.

Academic Policies for the Graduate Programs in the School of Nursing

(The following policies apply only to students admitted to the School of Nursing.)

Semester Load

Full-time graduate students are those enrolled in 8 or more credit hours during a regular semester or 4 or more credit hours during a summer session. Enrollment in fewer credits than this constitutes part-time study.

Absences

Illness is usually the only acceptable excuse for absence. Allowances for illness are based on the time at which they occur and the amount of time lost. Loss of time in any course may require that the student repeat the course.

Leave Policy

Students admitted to the graduate programs may petition for a leave of absence of up to one year for personal or health reasons. Students must obtain their advisors' approval and petition the Graduate Admission, Progression, and Graduation Committee in writing. To extend time required for completion of a program, students must obtain leave prior to extended absence.

Completion of Degree Requirements

The School of Nursing must receive notices of removal of Incomplete and Deferred grades, special credit grades, and independent study course grades no later than three weeks before the end of classes in the student's last semester prior to graduation.

Auditing of Courses

An audit student officially registers for a class and pays the applicable credit hour rate. Upon

completion, the course is entered on the permanent university record as one taken for no credit (NC). Note that this option is available only with the instructor's permission.

Withdrawals

Students who wish to withdraw from any or all courses should consult with their academic advisors. The steps to withdraw and possible refunds vary depending on the point of the semester. For specific steps consult the *Schedule of Classes* or visit registrar.iupui.edu.

Incomplete (I) Grades

The grade of Incomplete used on final grade reports indicates that the work is satisfactory as of the end of the semester, but has not been completed. The grade of Incomplete may be given *only* when the completed portion of a student's work in the course is of passing quality. Instructors may award the grade of Incomplete only upon a showing of such hardship to a student that would render it unjust to hold the student to the time limits previously fixed for the completion of the course work.

Deferred Grades

The grade of R (Deferred) is appropriate only as long as there is work in progress. Only certain courses are designated as courses for which the grade of R may be awarded.

Addition of Courses/Change of Section

Students may add courses or change from one section of a course to another according to the dates in the *Schedule of Classes*. To add a course or change a section, students must obtain their faculty advisor's signature on the appropriate forms, available from the Office of Educational Services in the School of Nursing. The signature of the associate dean for graduate programs is required after specific deadlines. Deadlines and additional signatures of authorization, when necessary, are specified in the instructions accompanying the form, and in the *Schedule of Classes*.

Cumulative Grade Point Average

Grades in courses transferred from another institution are not used in calculating the cumulative grade point average. However, all grades from course work attempted at Indiana University are used in calculating the cumulative grade point average.

Computer Literacy

Prior to enrolling in nursing courses, faculty expect nursing students to be able to use computers well enough to log on to the Internet to access class content. Students should also be able to search for nursing-related materials and to return to an interesting site whenever they choose by using bookmarks or a word processor to store Internet location addresses. Students also should be able to log in to an e-mail account to communicate with other students and faculty, and to use a word-processing program.

Students should have a Pentium Pro computer with a minimum 36.6-baud modem; a minimum of 32 MB

RAM, 166 MHz or greater processing speed; multimedia capabilities; and the IUPUI SoftPak software. This software can be purchased at the IUPUI Cavanaugh Bookstore on CD for \$5. These CDs include software to connect to the IUPUI network, Netscape Communicator to use as a World Wide Web browser, and a virus checker. If the students are outside of the Indianapolis calling area, they should acquire an Internet provider such as America On Line (AOL), Prodigy, CompuServe, or another that has a phone number in their calling area. These commercial providers have their own World Wide Web browsers. Students in R.N.-B.S.N., R.N.-M.S.N., M.S.N., and Ph.D. programs are *required* to have their own computer and to be able to access the IUPUI campus services.

Master of Science in Nursing (M.S.N.)

The goal of the M.S.N. program is to prepare its graduates for leadership roles in advanced nursing practice, clinical specialization, or nursing administration. Majors are offered in eleven areas. Post-master's options are also available in all the majors. Students select a major area of study when they apply for admission.

Students may elect to follow a full- or part-time course of study. Minimum time for completion of degree requirements is three semesters. All degree requirements must be met within six years of initial enrollment. The pattern and duration for the individual student is determined in consultation with the faculty advisor. Degree requirements can be met ONLY PARTIALLY through distance education.

Selected master's courses are offered over the Virtual Indiana Campus (VIC) and the Internet. These courses are taught by graduate faculty from IU and are telecast to IU sites across the state.

The major purpose of the Master of Science in Nursing program is to prepare nurses for advanced practice in a selected area of nursing. The graduate of the master's degree program will be able to do the following:

1. Function as a leader, collaborator, and consultant to clients, colleagues, and other professionals when dealing with organizational aspects of health care delivery to a client group.
2. Base leadership strategies in the delivery of nursing care on critical analyses of research findings and theoretical concepts from nursing and related disciplines.
3. Participate as an informed professional health care provider to shape the social, political, and ethical ramifications of health care facing a multicultural society at the local, state, national, and international levels.
4. Perform advanced nursing practice within professional, legal, and ethical rules, regulations, and standards.
5. Evaluate the utility of research findings from nursing and related disciplines for the practice of nursing.

6. Evaluate nursing practice for individuals, families, and groups based on a conceptual understanding of health.

Admission Requirements

Admission to the master's program requires approval by the faculty in the department in which study is desired. Admission is based on the composite of qualifications (as evidenced by the application), official transcripts, and references. A personal interview may be requested by the department. Acceptance into the master's program is competitive.

The criteria that follow must be met for unconditional admission. An applicant who lacks one or more of the criteria may be considered for admission with probationary or conditional status.

1. A grade point average (GPA) of 3.0 or higher on a 4.0 scale from a program accredited by the National League of Nursing, or an equivalent program.
2. A score of 400 or better on two of the three sections of the Graduate Record Examination (GRE) General Test.
3. A current Indiana registered nurse license. International applicants must submit evidence of passing the Council of Graduates of Foreign Nursing Schools (CGFNS) qualifying examination prior to coming to Indiana University. Indiana licensure must be achieved prior to enrollment in any clinical nursing course.
4. A test of English as a Foreign Language (TOFEL) score of 550 or above for those students whose native language is not English.
5. Completion within the past seven years of a 3 credit hour statistics course (undergraduate or graduate) with a minimum grade of B-.
6. Verification of ability to use computer technologies including accessing, retrieving, receiving, and communicating information.
7. Verification of physical assessment skills (nursing administration students are exempt).
8. Two years of relevant clinical nursing experience as a registered nurse required for nurse practitioner applicants.

Mobility Option

Registered nurses wishing to pursue graduate education whose highest academic nursing credential is a nursing diploma, an associate degree in nursing, or a baccalaureate degree in another field may be interested in exploring this educational option. The mobility option allows registered nurses to earn a Master of Science in Nursing (M.S.N.) degree without the conferral of the baccalaureate degree in nursing. For more information, interested parties should contact the Office of Educational Services, School of Nursing 122, 1111 Middle Drive, IUPUI, Indianapolis, IN 46202-5107; telephone (317) 274-2806. Please note that this opportunity may not be the best option for the majority of registered nurses, so it is important to talk with the School of Nursing's academic mobility counselor early in the decision process.

Admission of Students on Academic Probation

Students with undergraduate GPAs lower than 3.0 may be admitted on academic probation upon the recommendation of the academic department in which they desire a major, and with the endorsement of the Graduate Admission, Progression, and Graduation (APG) Committee.

Maintaining Active Status of Admission

Admission is valid only for the enrollment period designated in the admission letter. Deferment may be granted upon written request, subject to adjustment of admission status to requirements of the new enrollment period. Applications and transcripts are kept on file for two years only; beyond that period, reapplication is required.

Part-Time Study

Part-time study is possible, provided that the program is completed within the six-year limitation period. Part-time students should consult with their academic faculty advisors each semester in order to maintain active status.

Degree Requirements

Candidates must meet both the general requirements of the master's program in the School of Nursing and the specific requirements of the major. Students must be enrolled to graduate.

All candidates for the degree of Master of Science in Nursing must fulfill the following requirements:

1. Complete a minimum of 42 credit hours of courses, depending on the major, and fulfill departmental requirements. A maximum of 3 credit hours may be taken at the undergraduate level. Courses meeting the requirement of advanced nursing practice must be taken in or through the School of Nursing.
2. Remove all conditions, deficiencies, probation, and Deferred or Incomplete grades.
3. Achieve a 3.0 GPA by the time the student has completed 42 credit hours of course work, as required by the major department. Credit hours toward the degree are not granted for courses with a grade below B-. All grades are included in computing the grade point average.
4. Complete all degree requirements within six years of the date the student begins course work.
5. Apply for the degree at the time of program planning for the final semester of study. Reapplication must occur if the graduation date changes. Application forms may be obtained from and filed with the recorder for graduate programs.

The School of Nursing is not responsible for certification for the degree if the student fails to file the application.

Portfolio Review Process for M.S.N. Course Substitution

Portfolio Purpose: The portfolio review process is available to all M.S.N. students who believe that they

can meet the learning objectives/competencies required of a specific nursing course within their program of study. The portfolio is a mechanism used to validate the acquisition of knowledge and skills congruent with course expectations and student learning outcomes. The portfolio provides objective evidence that students have acquired the content and skills through prior learning and/or practice experiences. The decision to accept the documentation provided is based on determination of the equivalency of this prior knowledge and skills that the student would be expected to demonstrate at the completion of a specific course. The portfolio review option does not take the place of course equivalency reviews or transfer credit.

Academic Standing of Students

Good Standing

A student is in good academic standing when his or her cumulative grade point average is 3.0 or better.

Disciplinary Probation

Disciplinary probation is administered under the *Code of Student Rights, Responsibilities, and Conduct*. The faculty reserve the right to request the withdrawal of a student when problems related to personal integrity, health, maturity, or safety in the practice of nursing demonstrate the student's unfitness to continue preparation for professional nursing.

Academic Probation

A student is placed on academic probation when the cumulative grade point average falls below 3.0 or if he or she earns a C+ or lower in a required course. The probationary status is removed within one semester or its equivalent (9 credit hours). Students who do not regain good academic standing after three semesters of probation will be dismissed from the program.

Maintaining Status

Students who do not register for a period of three consecutive semesters will be dismissed from the program. Students admitted on probation that fail to remove the conditions of admission within the time frame specified are subject to dismissal. Students attaining an unsatisfactory grade (below B-) in any clinical course may repeat the course only once; non-clinical courses may be repeated more than once if approved by the Graduate Admission, Progression, and Graduation (APG) Committee. If a course must be repeated, the department may specify additional conditions relating to progression in the program until the course is successfully completed. Evidence of lack of progress toward the degree is described as failure to successfully attain a B- or better in a course in which an unsatisfactory grade has been previously received. Students who do not complete all degree requirements within a six-year period following initial registration will be dismissed.

General Policies

In addition to policies described under the general statement of the School of Nursing, the following policies govern master's study in particular.

Correspondence Courses

Correspondence courses may not be counted toward the master's degree, but they may be used to make up deficiencies.

Transfer of Credits

Students must obtain the consent of the associate dean for graduate programs before credit earned at other institutions may be added to the official transcript. A maximum of 9 credit hours with a minimum grade of B in courses that fulfill the curriculum requirements may be transferred from an accredited college or university with the consent of the academic advisor. Credits used to meet requirements for the Bachelor of Science in Nursing may not be used toward the Master of Science in Nursing.

Degree Programs

Students may earn only one Master of Science in Nursing degree from the Indiana University School of Nursing, although they may study in more than one major.

Study/Thesis Continuation

After completing R590 Nursing Study (3 cr.) or R699 Master's Thesis in Nursing (6 cr.), the student must enroll every semester in R900 Continuation in Study or Thesis (1 cr.), until the study or thesis is satisfactorily completed.

Curriculum Design

Minimum completion time for the master's degree program is three semesters. The pattern and duration for the individual student is determined in consultation with the student's faculty advisor.

All majors include the following areas of study:

1. **Core Courses** One course each in research methodology, policy and practice perspectives in advanced nursing practice, ethical and legal perspectives in advanced nursing practice, advanced nursing practice roles, and nursing theory, for a total of 12 credit hours.
2. **Courses in the Nursing Major** Between 15 and 27 credit hours in specialty courses from the major department.
3. **Nursing Study/Thesis Option** Three (3) credit hours of nursing study or 6 credit hours of thesis work.

Required by some Majors:

Focus Area Courses Between 3 and 12 credit hours of electives chosen by the student in consultation with a faculty advisor.

Post-Master's Options

A minimum of 12 credit hours, determined by the area of study. Post-master's options are available in all Master of Science in Nursing majors. The option varies from 12 to 29 credits, depending on previous course work.

Program Descriptions

Students select a major area of study at the time they apply for admission. Post-master's options are available in all clinical areas and in nursing

administration and teacher education. The majors are listed by their respective departments.

Nursing Administration

Clinical Specialists

Adult Psychiatric Mental Health Nursing
Child/Adolescent Psychiatric Mental Health Nursing
Adult Health Clinical Nurse Specialist
Pediatric Clinical Nurse Specialist
Community Health

Nurse Practitioners

Pediatric Nurse Practitioner
Adult Nurse Practitioner (Geriatric and Oncology
Tracks available)
Family Nurse Practitioner
OB/GYN Nurse Practitioner
Acute Care Nurse Practitioner

Dual Degrees

The Indiana University School of Nursing offers dual-degree programs with the School of Public and Environmental Affairs (SPEA) and the Center on Philanthropy.

Joint educational offerings with SPEA provide opportunities for students to achieve the combined degrees of Master of Science in Nursing/Master of Public Affairs (M.S.N./M.P.A.) and Master of Science in Nursing/Master of Science in Health Administration (M.S.N./M.H.A.).

The M.S.N./M.P.A. and M.S.N./M.H.A. programs enable students to take a sequence of courses leading to both degrees. The student must have a baccalaureate degree or its equivalent from an NLN-accredited school of nursing and must apply to both the School of Nursing and the School of Public and Environmental Affairs. If the applicant is admitted to only one school, the applicant will be permitted to attend that school and will be required to meet the graduation requirements of that school.

Students should apply to both schools simultaneously for the M.S.N./M.P.A. and M.S.N./M.H.A. programs. Persons already enrolled in either the School of Nursing or the School of Public and Environmental Affairs may apply for admission to the other school, up to the time of completion of the second year of nursing study, or at the end of the first year of the M.P.A. or M.H.A. course of study.

Grade point averages in the School of Nursing and the School of Public and Environmental Affairs are computed separately. Continuation in a combined program requires the student to meet academic standards in each school. A student failing in one school but meeting academic standards in the other may complete work for the degree in the school in which academic standards are met. Such completion must be upon the same conditions (credit hours, residency, etc.) as required of non-combination degree candidates (i.e., 42 credit hours for the School of Nursing and 48-60 credit hours for SPEA). Students will be eligible for honors in each school, based on the criteria of each school.

Students enrolled in the combined programs will be assigned co-advisors, one each from the faculty of the School of Nursing and the School of Public and

Environmental Affairs. The co-advisors are responsible for reviewing the student's progress each semester to ensure attainment of educational objectives. Students should consult with an academic advisor regarding appropriate sequence and combination of courses.

Dual M.H.A./M.S.N. Degrees

Courses for the M.H.A./M.S.N. Program

Required Nursing Core Courses (12 credits)

NURS R500 Nursing Research Methods I (3)
NURS N502 Nursing Theory I (3)
NURS N530 Policy and Practice Perspectives (2)
NURS N532 Advanced Practice Roles (2)
NURS N534 Ethical/Legal Perspectives (2)

Required M.H.A. Courses (31.5 – 34.5 credits)

SPEA H501 U.S. Healthcare Systems (3)
SPEA A524 Accounting (3)
SPEA J501/H614 Strategy (3)
*SPEA H615 Health Outcomes (3)
SPEA H518 Biostatistics (3)
SPEA H510 Health Care Finance (3)
SPEA H514 Health Care Economics (3) (see Required Nursing Administration Courses below)
*SPEA H516 Law (3)
SPEA M540 Marketing (1.5)
*SPEA H623 Health Care Applications of Strategy (3)
SPEA H702 Internship in Health Services Management (3)

or

NURS L579 Practicum (see Required Nursing Administration Courses below)
SPEA H521 Management Science (3)
*SPEA H628 Health Information Systems (3)

Required Nursing Administration Courses (18-21 credits)

NURS L573 Organizational Behavior (3)
NURS L574 Administrative Management (3)
NURS L575 Corporate/Public Policy (3)
NURS L671 Financial Management (3)
NURS R590 Nursing Study (3)
NURS L579 Nursing Administration Practicum (3)

or

SPEA H702 Practicum (3) (see Required M.H.A. Courses above)
SPEA H514 Health Care Economics (3)
*Nursing Electives (9)

Total: 64.5 Credits (see Note)

- * Nursing electives may be satisfied by any of these M.H.A. courses.
- Note: H518 Biostatistics may be used as the nursing prerequisite, and up to a combined 9 credits of mid-career credit may be available (see Course Waivers, Substitutions and Challenge Exams under SPEA or Portfolio Review Process under M.S.N. in Nursing – Degree Requirements).

Dual M.S.N./M.A. in Philanthropic Studies (PHST) Degrees

The Indiana University School of Nursing and the Center on Philanthropy at Indiana University have collaborated to offer the Master of Arts in Philanthropic Studies and Master of Science in Nursing Administration. Requirements for this dual degree program are:

Required Nursing Core Courses (12 credits)

NURS N502 Nursing Theory I (3)
NURS N530 Policy and Practice Perspectives (2)
NURS N532 Advanced Practice Roles (2)
NURS N534 Ethical and Legal Perspectives (2)
NURS R500 Nursing Research Methods I (3)

Required Core Courses in Philanthropic Studies (9 – 12 credits)

HIST H509 History of Philanthropy in the West (3)
PHIL P542 Ethics and Values of Philanthropy (3)
PHST P512 Human and Financial Resources for Philanthropy (3)
PHST P590 Internship in Philanthropic Studies (3)
or
NURS L579 (see Required Nursing Administration Courses below)

Required Nursing Administration Courses (18 – 21 credits)

NURS L573 Organizational Behavior (3)
NURS L574 Administrative Management (3)
NURS L575 Corporate and Public Policy for Nurse Executives (3)
SPEA H514 Health Care Economics (3)
NURS L671 Financial Management: Nursing (3)
NURS R590 Nursing Study (3)
or
NURS R699 Master's Thesis in Nursing (6)
NURS L579 Nursing Administration Practicum (3)
or
PHST P590 (see Required Core Courses in Philanthropic Studies above)

Required Focus Area Concentration Options (6 credits)

ECON E514 Nonprofit Economy and Public Policy (3) (Required)
AMST P520 Philanthropy in American Culture (3)
or
ANTH A509 Cross-cultural Dimensions of Philanthropy (3)
Theoretical elective in Philanthropic Studies (3)
Credit for Thesis Option or other approved graduate-level courses (6)

One of the Following (3 credits)

EDUC C595 Legal Aspects of Philanthropy (3)
PHST P521 / SPEA V521 The Nonprofit and Voluntary Sector (3)
Approved graduate course in fundraising, executive leadership, or grant writing (3)

Total: 51-54 Credit hours

Ph.D. in Nursing Science Program

The Doctor of Philosophy program, which builds on baccalaureate nursing education, is based on the beliefs that professional nursing is a scientific discipline and that it has a unique role and body of knowledge. This body of knowledge can be expanded, applied, and validated through recognized methods of scholarly inquiry. As students progress through the program, they become socialized to the value of research and interdisciplinary inquiry, and acquire the skills necessary to conduct independent research.

The primary goal of the Doctor of Philosophy of Nursing Science program at the Indiana University School of Nursing is the preparation of scholars in the following fields of study: environments for health,

acute and chronic health problems, health promotion, and family health adaptation. Graduates will create and disseminate to the public new knowledge related to these fields of study. Upon completion of the Ph.D. in Nursing Science program, graduates will be able to

1. Synthesize knowledge from nursing as well as from the biological and behavioral sciences to investigate health phenomena relevant to the discipline of nursing;
2. Utilize analytical and empirical methods to extend nursing knowledge and scholarship;
3. Independently conduct and communicate research that advances the body of scientific nursing knowledge;
4. Defend the social significance of the expanded knowledge base of nursing;
5. Interpret nursing science within an interdisciplinary context.

Admission Requirements

The following criteria must be met for admission consideration:

1. Successful completion of a baccalaureate in nursing or master of science in nursing from a program within a regionally accredited institution of higher education. (Indiana University School of Nursing faculty retain the right to determine acceptable accreditation status of nursing programs from which applicants have graduated.)
2. A baccalaureate cumulative grade point average (GPA) of 3.0 or higher on a 4.0 scale. For applicants holding a master's degree, a cumulative graduate GPA of 3.5 or higher is required. (The master's degree GPA will supersede the baccalaureate GPA.)
3. Completion of a 3 credit hour statistics course with a grade of B (3.0) or higher within seven years before the date of proposed enrollment.
4. The ability to secure current registered nurse licensure in Indiana. International students may request a waiver of licensure as an admission requirement. If the waiver is granted, they must obtain a registered nurse license in Indiana within one year of admission to the Ph.D. program. Applicants whose program of study will not require contact with patients may be exempted from the licensure requirement by the IUSON's director of doctoral studies.
5. Competitive scores (600 or better) on the verbal, quantitative, and analytical sections of the Graduate Record Examination (taken in the last five years).
6. A score of 600 or better on the Test of English as a Foreign Language (TOEFL) for students whose first language is not English. A test of written English is also required.
7. A two- to three-page essay summarizing immediate and long-range professional goals and a proposed area of research.
8. An example of original scholarship or research in nursing, as demonstrated by a report, published and unpublished papers, or a thesis.
9. Three references, including at least one from a nurse faculty member who has knowledge of the applicant's academic ability from undergraduate or master's work.

10. An interview with a member(s) of the Doctoral Studies Advisory Committee (arranged by the school).

11. A letter of support from an Indiana University School of Nursing faculty member with full graduate faculty status, who has agreed to be a research mentor.

Study and Research Focus Areas

Students will pursue study and related research in one of four focus areas: acute and chronic health problems, environments for health, family health adaptation, and health promotion. These focus areas were chosen on the basis of faculty research strengths and on the funding priorities of the National Institute of Nursing Research.

Acute and Chronic Health Problems

Individuals who have acute or chronic health problems often need intervention to facilitate management of the specific problem. Intervention may focus on influencing the behavior of the patient as well as the behavior of the caregiver. To that end, nurse researchers in this focus area examine human responses to acute and chronic health problems and the factors that influence these responses; individual and group factors that contribute to or influence the course of health problems; and the effectiveness of the nursing therapeutics used in the care of persons with health problems.

Environments for Health

Environments that influence health and the delivery of health care, both in traditional health care settings and in the community, are the topics in this area. Pertinent studies include factors in environments that influence the health of groups, as well as studies of the environments in which health care is delivered; the emphasis is on the system and how it affects individuals. Research in this area is particularly relevant at a time when more health care is being moved from acute care facilities to community-based settings, creating a demand for a better understanding of the evolving systems needed to deliver care effectively and efficiently.

Family Health Adaptation

Nursing's acknowledgment of the fact that no one lives in isolation, and of the importance of the person-environment fit, forms the philosophical base for this focus area. All individuals live within a social system of significant others. Although the term "family" has evolved through the years and sometimes seems to defy universal definition, the notion of nurturing relationships—regardless of specific life stage or lifestyle—is central to human existence and plays a critical role in health promotion, maintenance, and treatment. Research in this area explores the family dimensions of health and adaptation by focusing on "family" as the unit of care, rather than on individuals in the context of family. These dimensions include family development, family definition of health, family access to health care, family support to sick individuals, and the impact of health problems on the family.

Health Promotion

Nursing involves a commitment to health promotion, disease prevention, and health restoration with an emphasis on the "whole" person and the encouragement of self-help. This focus area emphasizes research that builds on those beliefs and examines the relationship between the physiological and behavioral aspects of health. The focus is on nursing's role in helping individuals to monitor and to improve their health and quality of life. Studies examine human behaviors related to health promotion, factors that influence health-seeking behaviors, and interventions that promote optimal health for individuals by influencing health behaviors.

Curriculum

Students must complete a minimum of 90 credit hours. A maximum of 30 credit hours may be from Master of Science course work. The 90 credit hours include the following areas:

Theory, Research, and Statistics

<i>Theory</i>	<i>6 cr.</i>
N502 Nursing Theory I	3 cr.
D607 Nursing Theory II	3 cr.
<i>Research Methods and Statistics</i>	<i>12 cr.</i>
R500 Nursing Research Methods I	3 cr.
R600 Nursing Research Methods II	3 cr.
Two statistical methods courses	6 cr.
<i>Advanced Methods Track</i>	<i>6 cr.</i>
Quantitative Track	
One advanced statistical methods course	3 cr.
One advanced quantitative methods course	3 cr.
OR	
Qualitative Track	
One survey of qualitative research methods seminar	3 cr.
One advanced qualitative research methods course	3 cr.
Total	24 cr.

Nursing Science and Research

<i>Proseminars</i>	<i>6 cr.</i>
D730 Proseminar: State of Nursing Science I (environments for health/family health adaptation)	3 cr.
D731 Proseminar: State of Nursing Science II (acute and chronic illness/health promotion)	3 cr.
<i>Focus Area Course Work</i>	<i>24 cr.</i>

Total 30 cr.

External Cognate Minor 12 cr.

Dissertation

Dissertation seminar (3 cr.)	
Dissertation (21 cr.)	
Total	24 cr.

TOTAL OVERALL 90 cr.

Ph.D. in Nursing Science Program: Sample Course of Study¹

First Semester

Statistical methods course	3 cr.
N502 Nursing Theory I	3 cr.
Focus area course	3 cr.
Total	9 cr.

Second Semester

R500 Nursing Research Methods I	3 cr.
Statistical methods course	3 cr.
D607 Nursing Theory II	3 cr.
Total	9 cr.

Third Semester

R600 Nursing Research Methods II	3 cr.
Focus area course	3 cr.
D730 Proseminar: State of Nursing Science I	3 cr.
Total	9 cr.

Fourth Semester

Statistical Methods (multivariate) (Qualitative Track)	3 cr.
Focus area course	3 cr.
D731 Proseminar: State of Nursing Science II	3 cr.
Total	9 cr.

Fifth Semester

Focus area research	6 cr.
External cognate minor course	3 cr.
Total	9 cr.

Summer Session

External cognate minor course	3 cr.
Total	3 cr.

Sixth Semester

Focus area research	3 cr.
Focus area research	3 cr.
External cognate minor course	3 cr.
Total	9 cr.

Seventh Semester

Focus area research	6 cr.
External cognate minor course	3 cr.
Total	9 cr.

Eighth Semester

Dissertation seminar	3 cr.
Dissertation	5 cr.
Total	8 cr.

Ninth Semester

Dissertation	8 cr.
Total	8 cr.

Tenth Semester

Dissertation	8 cr.
Total	8 cr.

TOTAL OVERALL	90 cr.
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¹ Sample plan is for full-time study; part-time study is possible. Students must complete the Ph.D. program within seven years of enrollment. Sample plan is appropriate for students entering the Ph.D. program after completing a bachelor's degree. Students who hold the Master of Science in Nursing may use a maximum of 30 credit hours from that degree program to meet Ph.D. program requirements.

Financial Information

Information about financial resources for admitted graduate nursing students may be obtained from the Office of Educational Services, School of Nursing 122, 1111 Middle Drive, IUPUI, Indianapolis, IN 46202-5107; telephone: (317) 274-2806; Web site: nursing.iupui.edu. A variety of financial resources are specific to graduate students.

School of Nursing Support

Professional Nurse Traineeships

Government stipends are available to students for a maximum of 36 months. Applicants must be full-time students (Nursing Administration major students are not eligible). Application is due May 1 to School of Nursing, associate dean of graduate programs.

Fee Scholarship/Remissions, Research Graduate Assistantships

Students filling research assistant (RA) positions assist faculty in their research efforts and gain hands-on research experience. A limited number of graduate assistant (GA) positions are available. Students in these positions assist faculty in meeting their teaching responsibilities. Fee scholarships are provided for RA and GA positions. In addition, an hourly wage may be paid depending on the project's funding. Part-time and full-time admitted students are eligible. Only in-state tuition is paid. Application is due May 1 to IU School of Nursing, associate dean of graduate programs.

University Support

Financial support for graduate students, available from the IUPUI Office of Scholarships and Financial Aid, is primarily in the form of loans and Federal Graduate Work-Study employment. Eligibility for these programs is determined by financial need. Students must submit the forms to determine financial need annually by March 1. In addition to demonstrating financial need, students must be admitted and in a nursing graduate program for a minimum of 4 credit hours, or half-time per semester. Further information can be obtained from the Office of Student Financial Aid Services, Cavanaugh Hall 103, 425 University Boulevard, Indianapolis, IN 46202-5145; telephone (317) 278-GRAD.

University Fellowships

Graduate fellowships are available from Indiana University for full-time study during the first year. These awards are competitive. Ph.D. candidates are eligible and are nominated by the IUSON faculty.

IUPUI Educational Opportunity Fellowships

These fellowships are awarded to encourage graduate students who are enrolled at a minimum of 6 credit hours per semester, and who have disadvantaged backgrounds, to participate in graduate studies. Educational Opportunity Fellowships, which average

\$500 to \$1,500 per year, are awarded on the basis of financial need and academic ability. The submission of a form to determine financial need is required.

Graduate Work-Study Positions

These positions are funded by the Federal Graduate Work-Study program; students are employed as clinical faculty members, learning lab instructors, or technical research assistants. Students must complete the required application forms by March 1 each year to establish eligibility for these awards. Fee scholarships may be provided in addition to salary earned.

Admitted nursing students may be eligible for other scholarships and short-term loans administered by the School of Nursing. For more information, contact the Office of Educational Services, Graduate Counselor, School of Nursing 122, 1111 Middle Drive, IUPUI, Indianapolis, IN 46202-5107; telephone (317) 274-2806.

Educational Services

The mission of the Office of Educational Services in the School of Nursing is to promote and facilitate the success of its students. This mission is implemented through the functions of academic counseling, recruitment, admissions, registration, certification, academic record maintenance, academic performance monitoring, orientation programs, minority and international counseling, graduation, and student activities. Student services personnel serve as liaisons between students, faculty, and other groups in interpreting School of Nursing and university policies and procedures, and in advocating students' rights and responsibilities.

Orientation

All students new to the School of Nursing are expected to attend the nursing orientation program at the beginning of the fall or spring semester.

Guidance and Counseling

A counselor in the Indiana University School of Nursing Office of Educational Services is available as a resource for students. Students must see their faculty advisors for academic counseling and program planning. The counselor for minority affairs on the IUPUI campus is also available to assist minority students with special needs. Students at IUPUI may also consult the Adult Psychiatry Clinic, the Chaplain's Office, the Learning Skills Center, the Office of Career and Employment Services, Counseling and Psychological Services, or other local agencies for specialized counseling.

Graduate Minority Mentoring Program

The IU School of Nursing has initiated a graduate student mentoring program to support minority and international students during their education in the graduate program. Faculty members serve as mentors for students.

The goals of the program are:

1. To help students develop personal, social, and professional skills that will enable them to understand the challenges of graduate education and will enhance opportunities for academic and professional success.
2. To motivate students' involvement in opportunities presented through the Indiana University Graduate School, Indiana University School of Nursing, and Indiana University support services.
3. To promote communication between students, administrators, professors, mentors, staff, and the community.
4. To promote experiences that will support the accomplishment of a student's professional goals.
5. To meet regularly with students to review progress and to make plans for future success.

The benefits of the program for participating students are:

1. Opportunities to learn more about the Indiana University School of Nursing and Indiana University itself.
2. Expert assistance in developing career goals in advanced practice nursing.
3. Expert guidance in making career decisions.
4. Assistance in bridging the gap between academic achievement and its application in the workplace.
5. Participation in peer group experiences designed for students of color.
6. Individual instruction to prepare for admission into and progression through the graduate program in nursing.

Courses

All courses are preceded by the abbreviation "NURS" or "NSAA." The number of credit hours is indicated in parentheses following the course title. The abbreviation "P" refers to the course's prerequisite(s); "C" refers to corequisite(s).

A100 Nursing: Drug Dosage Calculation (2 cr.) Provides a review of basic mathematics and presents a method of solving problems involving drug dosages. Course is open to those interested in nursing.

B104 Power Up: Strategies for Academic Success (2 cr.) This course focuses on assisting students in gaining essential skills for academic success and in developing the ability to make use of university resources. Topics will include time management, stress management, critical thinking, development of networks of support, communication skills, learning styles, and academic responsibility. Teaching and learning strategies will incorporate campus technology and library resources as tools for completion of course requirements. First-year course for students who have declared nursing as a major.

Associate of Science in Nursing (A.S.N.)

A136 Introduction to the Science and Technology of Nursing (4 cr.) C: Human Anatomy, Microbiology, A137. This course focuses on the discipline of nursing by introducing students to the foundational knowledge needed to assess the life processes, and the developmental, ethnic, and

cultural patterns of health and illness in individuals. Students will apply this knowledge to identify common problems, and to implement standardized nursing practices. The course will emphasize nursing roles, the nursing process, and the acquisition of basic psychomotor skills in simulated learning settings.

A137 Application of the Science and Technology of Nursing (3 cr.) C: Human Anatomy, Microbiology, A136. Students will focus on the use of critical thinking skills in the assessment of life processes, and developmental, ethnic, and cultural patterns of health and illness in the care of adults. This course provides the opportunity to apply basic psychomotor skills and to implement standard nursing practices. Students will also be introduced to technology appropriate to support prescribed care interventions.

A146 Care of the Individual: Alterations in Nutrition, Elimination, and Metabolic Functions (3 cr.) P: A136, A137; C: Human Physiology, A147. This course focuses on the functional, adaptational, ethnic, and cultural patterns of young, middle-aged, and elderly adults with emphasis on alterations in nutrition, elimination, and metabolic processes. Students will use the nursing process in identifying interventions consistent with acute and chronic alterations in nutrition, elimination, and metabolic processes.

A147 Nursing Practicum: Alterations in Nutrition, Elimination, and Metabolic Functions (3 cr.) C: Human Physiology, A146. Students will focus on the nursing process in the delivery of nursing care for adults with alterations in nutrition, elimination, and metabolic processes. Emphasis is placed on the developmental patterns of adults. Course provides students with the opportunity to continue to develop critical thinking, communication, and psychomotor skills consistent with the role of a competent care provider in a variety of care settings.

A148 Care of the Individual: Alterations in Comfort and Function (2 cr.) P: A136, A137; C: Human Physiology, A149. This course focuses on the experience of stress and coping, and pain and mobility impairment in young, middle-age, and elderly adults from the perspectives of health, developmental, and ethnic/cultural patterns. Students will use the nursing process to formulate care plans/maps for individuals experiencing cancer, altered immune responses, and impaired musculoskeletal function and skin integrity.

A149 Nursing Practicum: Alterations in Comfort and Function (2 cr.) C: Human Physiology, A148. Students will focus on assessment, diagnosis, planning, implementation, and evaluation of individuals experiencing alterations in comfort and function. Students will be expected to perform selected skills safely and competently and to demonstrate accountability for the management of individuals' care in a variety of settings.

A276 Care of the Individual: Alterations in Activity–Exercise (3 cr.) P: A146, A147, A148, A149; C: A277. This course focuses on the application of all aspects of the nursing process in caring for individuals experiencing selected acute and chronic alterations in cardiac, respiratory, and hematological systems across the life span. Integration and critical examination of prior and new knowledge will be emphasized.

A277 Nursing Practicum: Care of the Individual—Alterations in Activity–Exercise (3 cr.) C: A276. Students will focus on adults experiencing selected acute and chronic cardiac, respiratory, and hematological alterations and their related disruptions in activity–exercise abilities. The nursing process will be used in providing care that will foster positive outcomes.

A278 Care of the Individual: Alterations in Cognition, Perception, and Interaction (3 cr.) P: A146, A147, A148, A149; C: Life Span and A279. This course focuses on the knowledge and skills needed to care for individuals experiencing actual or potential problems of the neuro-psychological, neuromuscular, or central nervous system. Problems include cognitive, physiological, emotional, and behavioral disruptions experienced by individuals across the life span.

A279 Nursing Practicum: Care of the Individual Alterations in Cognition, Perception, and Interaction (2 cr.) C: PSY B310 and A278. Students will focus on individuals experiencing neuro-psychological, neuromuscular, central nervous system, cognitive, emotional, and behavioral disruptions. Students will be expected to integrate knowledge and skills in increasingly complex care situations consistent with course and level competencies.

A286 Care of the Individual: Beginning and Evolving Families (3 cr.) P: A276, A277, A278, A279, and PSY B310; C: A287. This course focuses on the study of individuals and families during the childbearing and child raising phases of development. Concepts of growth and development, health promotion, health maintenance, illness, and illness prevention are integrated.

A287 Nursing Practicum: Care of the Individual—Beginning and Evolving Families (3 cr.) C: A286. Students will focus on care of individuals and families during the childbearing and child raising phases of development. Students will be expected to apply nursing skills and knowledge to promote family function and growth. Students will have opportunities to interact with children, adults, and families across the care continuum.

A288 Care of the Individual within a Family and Community Context (2 cr.) P: A276, A277, A278, A279, PSY B310; C: A289. This capstone course focuses on the integration of knowledge and its application in the provision of comprehensive nursing care. The role of the nurse in planning, collaborating, organizing, communicating, problem-solving, and evaluating care outcomes will be emphasized. Principles of care management and pharmacology will be synthesized into course content.

A289 Nursing Practicum: Care of the Individual within the Family and Community Context (3 cr.) C: A288. Students will apply the nursing process in managing care for multiple individuals and their families in a variety of acute and community-focused settings where policies and procedures are specified and professional consultation is available. Students will also demonstrate their ability to synthesize pharmacology and the use of computers in their practice.

A290 The Discipline of Nursing: Role

Transitioning (2 cr.) C: A286 and/or A288. This course focuses on the transition from the role of student to graduate nurse. Emphasis is placed on the responsibilities and expectations of the professional nurse in the health care delivery system. Legal and ethical issues, professional development, group dynamics, risk management, quality assurance, political action, nursing organizations, and the use of research to inform nursing practice will be explored.

A190 Special Topics in Nursing (1-3 cr.)

P: Completion of all required course work noted or permission of instructor. Students will have an opportunity to pursue special topics of interest related to the professional practice of nursing. Topics will be offered on an as-needed basis.

A192 Special Topics in Nursing: Practicum

(1-3 cr.) **P:** Completion of all required course work noted or permission of instructor. Students will have an opportunity to pursue areas of nursing practice that complement their program of study. Course offerings will be based on resource availability.

A280 A.S.N. Portfolio Review for Course

Substitution (1-3 cr.) The portfolio review process is available to all undergraduate students who believe that they can meet the learning objectives/competencies required of a specific nursing course within their program of study. The portfolio is a mechanism used to validate the acquisition of knowledge and skills congruent with course expectations and student learning outcomes. The portfolio provides objective evidence that students have acquired the content and skills through prior learning and/or practice experiences.

L.P.N. to A.S.N. Option**A150 L.P.N. Transition to A.S.N. Practice (4 cr.)**

This course builds on assessment of prior knowledge and skills and facilitates advanced placement in the A.S.N. program. Offers opportunity to use critical thinking, communication, physical assessment, and psychomotor skills in applying the nursing process to care of adults with alterations in comfort/function, nutrition, elimination, and metabolic processes. Begins socialization to A.S.N. roles.

Bachelor of Science in Nursing (B.S.N.)**B230 Developmental Issues and Health (4 cr.)**

P: Introduction to Psychology; Recommended: Cultural Diversity cluster course. This course focuses on the theoretical perspectives of growth and development, family theories and family adaptation at different stages, and usual patterns of aging. Students will make assessments of individuals in various stages of life to identify developmental issues of interest to nursing, and their impact on health phenomena.

B231 Communication for Health Care

Professionals (3 cr.) Students in this course will focus on basic communication skills essential for working with health care professionals and clients of various ages. Content includes interpersonal communications and group dynamics. Students will practice communication skills with individuals, within groups, and through electronic media.

B232 Introduction to the Discipline of Nursing: Theory, Practice, Research (3 cr.)

This course

focuses on core theoretical concepts of nursing practice: health, wellness, illness, wholism, caring, environment, self-care, uniqueness of persons, interpersonal relationships, and decision-making. Through integrating theory, research, and practice, this course helps the student understand nursing's unique contributions to meeting societal needs.

B233 Health and Wellness (4 cr.) **P/C:** Physiology, Microbiology, or Anatomy. This course focuses on the use of concepts from nursing, nutrition, pharmacology, and biopsychosocial sciences to critically examine the determinates of health, wellness, and illness across the life span.

Environmental, sociocultural, and economic factors that influence health care practices are emphasized. Theories of health, wellness, and illness are related to health-promotion, disease-prevention, and illness-prevention nursing interventions.

B244 Comprehensive Health Assessment (2 cr.)

P: B230, B231, B232, B233; **P/C:** Anatomy, physiology, or microbiology; **C:** B245. This course focuses on helping students acquire skills to conduct a comprehensive health assessment, including the physical, psychological, social, functional, and environmental aspects of health. The process of data collection, interpretation, documentation, and dissemination of assessment data will be addressed.

B245 Comprehensive Health Assessment:

Practicum (2 cr.) **C:** B244. Students will have the opportunity to use techniques of interview, observation, percussion, palpation, inspection, and auscultation in assessing clients across the life span in simulated and actual environments.

B248 Science and Technology of Nursing (2 cr.)

P: B230, B231, B232, B233; **P/C:** Physiology, Anatomy, Microbiology; **C:** B249. This course focuses on the fundamentals of nursing from a theoretical research base. It provides an opportunity for basic care nursing skills development. Students will be challenged to use critical thinking and problem solving in developing the ability to apply an integrated nursing therapeutics approach for clients experiencing health alterations across the life span.

B249 Science and Technology of Nursing:

Practicum (2 cr.) **C:** B248. Students will have the opportunity to demonstrate fundamental nursing skills in the application of nursing care for clients across the life span.

H351 Alterations in Neuro-Psychological Health (3 cr.)

P: B244, B245, B248, B249, Anatomy, Physiology, Microbiology; **C:** H352. This course focuses on individuals and small groups experiencing acute and chronic neuropsychological disorders. Content includes the effect of brain-body disturbances on health functioning. Other content areas are growth and development, stress, mental status, nurse-client relationships, psychopharmacology, and nursing approaches for clients experiencing DSM-IV neuropsychological disorders.

H352 Alterations in Neuro-Psychological

Health: Practicum (2 cr.) **C:** H351. Students will provide nursing care to individuals and small groups who are experiencing acute and chronic neuropsychological disturbances related to

psychiatric disorders. Student experiences will be with individuals and small groups in supervised settings such as acute, community-based, transitional, and/or home care.

H353 Alterations in Health I (3 cr.)

P: B244, B245, B248, B249, Anatomy, Physiology, Microbiology; **C:** H354. This course focuses on the pathophysiology and holistic nursing care management of clients experiencing acute and chronic problems. Students will use critical thinking and problem-solving skills to plan interventions appropriate to health care needs.

H354 Alterations in Health I: Practicum (2 cr.)

C: H353. Students will apply the science and technology of nursing to perform all independent, dependent, and interdependent care functions. Students will engage clients in a variety of settings to address alterations in health functioning, identify health care needs, and determine the effectiveness of interventions given expected outcomes.

H355 Data Analysis in Clinical Practice and

Health Care Research (3 cr.) **P:** B244, B245, B248, B249. This course introduces nursing and other health sciences students to the basic concepts and techniques of data analysis needed in professional health care practice. Principles of measurement, data summarization, and univariate and bivariate statistics are examined. Differences in types of qualitative data and methods by which these types of data can be interpreted are also explored. Emphasis is placed on the application of fundamental concepts to real world situations in client care.

H361 Alterations in Health II (3 cr.)

P: H351, H352, H353, H354; **C:** H362. This course builds on Alterations in Health I, and continues to focus on pathophysiology and holistic nursing care management of the associated needs of clients experiencing acute and chronic health problems.

H362 Alterations in Health II: Practicum (2 cr.)

C: H361. Students will continue to apply the science and technology of nursing to perform all independent, dependent, and interdependent care functions. Students will engage clients in a variety of settings to address alterations in health functioning.

H363 The Developing Family and Child (3 cr.)

P: H351, H352, H353, H354; **C:** H364. This course focuses on the needs of individuals and their families who are facing the phenomena of growth and development during the childbearing and child-rearing phases of family development. Factors dealing with preserving, promoting, and restoring the healthy status of family members will be emphasized.

H364 The Developing Family and Child:

Practicum (3 cr.) **C:** H363. Students will have the opportunity to work with childbearing and child-rearing families, including those experiencing alterations in health.

H365 Nursing Research (3 cr.)

P: H351, H352, H353, H354; **P/C:** Statistics. This course focuses on development of students' skills in using the research process to define clinical research problems and to determine the usefulness of research in clinical decisions related to practice. The critique of nursing and nursing-related research studies will be

emphasized in identifying applicability to nursing practice.

S470 Restorative Health Related to Multi-System Failures (3 cr.) P: H361, H362, H363, H364, H365; C: S471. This course focuses on the pathophysiology and nursing care management of clients experiencing multi-system alterations in health status. Correlations among complex system alterations and nursing interventions to maximize health potential are emphasized.

S471 Restorative Health Related to Multi-System Failures: Practicum (2 cr.) C: S470. Students will apply the nursing process to the care of clients experiencing acute multi-system alterations in health.

S472 A Multi-System Approach to the Health of the Community (3 cr.) P: H361, H362, H363, H364, H365; C: S473. This course focuses on the complexity and diversity of groups or aggregates within communities and their corresponding health care needs. Through a community assessment of health trends, demographics, epidemiological data, and social/political-economics issues in local and global communities, the student will be able to determine effective interventions for community-centered care.

S473 A Multi-System Approach to the Health of the Community: Practicum (2 cr.) C: S472. Students will have the opportunity to apply the concepts of community assessment, program planning, prevention and epidemiology to implement and evaluate interventions for community-centered care to groups or aggregates. Professional nursing will be practiced in collaboration with diverse groups within a community.

S474 Applied Health Care Ethics (3 cr.) P: H361, H362, H363, H364, H365. This course is designed to introduce the student to major ethical theory, principles, and models for the recognition, analysis, and resolution of ethical dilemmas in health care practice.

S481 Nursing Management (2 cr.) P: H361, H362, H363, H364, H365; C: S482. This course focuses on the development management skills assumed by professional nurses, including delegation of responsibilities, networking, facilitation of groups, conflict resolution, leadership, case management, and collaboration. Concepts addressed include organizational structure, change, managing quality and performance, workplace diversity, budgeting and resource allocation, and delivery systems.

S482 Nursing Management: Practicum (3 cr.) C: S481. Students will have the opportunity to apply professional management skills in a variety of nursing leadership roles.

S483 Clinical Nursing Practice Capstone (3 cr.) P: S470, S472, S473, S481, S482, or permission of instructor; C: S484. Students will have the opportunity to demonstrate competencies consistent with program outcomes and to refine their nursing care practice skills. Students will collaborate with faculty and a preceptor in: choosing a care setting, planning and organizing a learning experience, and practicing professional nursing in a safe and effective manner.

S484 Research Utilization Seminar (1 cr.) C: S483. This course focuses on students' abilities to refine their critical/analytical skills in evaluating clinical research for applicability to nursing practice. Students will examine the role of evaluation, action research, and research findings in assuring quality of nursing care and in solving relevant problems arising from clinical practices.

S485 Professional Growth and Empowerment (3 cr.) P: H361, H362, H363, H364, H365. This course focuses on issues related to professional practice, career planning, personal goal setting, and empowerment of self and others. Students will discuss factors related to job performance, performance expectations and evaluation, reality orientation, and commitment to lifelong learning.

Z480 B.S.N. Portfolio Review for Course Substitution (1-6 cr.) P: Permission of instructor. The portfolio review process is available to all undergraduate students who believe that they can meet the learning objectives/competencies required of a specific nursing course within their program of study. The portfolio is a mechanism used to validate the acquisition of knowledge and skills congruent with course expectations and student learning outcomes. The portfolio provides objective evidence that students have acquired necessary content and skills through prior learning and/or practice experiences.

Z490 Clinical Experience in Nursing (1-6 cr.) Opportunity for independent study of clinical experience related to nursing practice. Before enrolling in an independent study option, student must obtain permission from a faculty member who will supervise the study. Students must file appropriate forms prior to registration. Planned and supervised clinical experiences will be arranged in the area of the student's major interest.

Z492 Individual Study in Nursing (1-6 cr.) Opportunity for independent study of topics related to nursing practice. Before enrolling in an independent study option, student must obtain permission from a faculty member who will supervise the study. Students must file appropriate forms prior to registration.

K490 Clinical Elective (1-6 cr.) Many clinical nursing elective courses are offered under this number. These elective offerings vary from year to year depending on student interest and available resources. Students are kept informed of elective offerings both through informational forums and through listings in the *Schedule of Classes*.

K492 Nursing Elective (1-6 cr.) Many nursing elective courses are offered under this number. These elective offerings vary from year to year depending on student interest and available resources. Students are kept informed of elective offerings both through informational forums and through listings in the *Schedule of Classes*.

R.N. to M.S.N. Mobility Option

B492 R.N.—M.S.N. Transition I (4 cr.) This course is designed to provide students learning opportunities to acquire knowledge and skills fundamental to advanced nursing roles including, but not limited to, research consumer, communication facilitator, advocate of nursing practice, and teacher of patients,

their families, and colleagues. This course is constructed in three distinct but related modules: Research, Interpersonal and Group Communication, and Roles. Although modules are independent of each other, information and skills students gain in one module will be used in application to others.

B490 R.N.—M.S.N. Transition II (4 cr.) Theories of community-based nursing and nursing leadership and management are analyzed in combination with related research and are applied to the nurse's evolving role in an era of health care reform. Learning opportunities emphasize the knowledge and skills needed to provide nursing care to client systems in the community. Future trends for nursing's leadership and management role are examined, with particular emphasis placed on the impact of health care reform.

Graduate Courses

Core Courses

D607 Nursing Theory II (3 cr.) P: N502. Focus is on the philosophical and ethical foundations of nursing science. Philosophical debates concerning science, knowledge development, theory construction, and values are used to enhance appreciation of advances in nursing knowledge. Theories, models, and conceptual frameworks are considered as guides to inquiry.

D730 Proseminar: State of Nursing Science I (3 cr.) Focus is on human behaviors related to health promotion, health protection, and factors that influence health-seeking behaviors in wellness and in acute and chronic illness. Provides an overview of the fields, while each student will critique and synthesize a specific topic relevant to his or her area of study.

D731 Proseminar: State of Nursing Science II (3 cr.) Focus is on the critical review of complex interactions of the environments and systems that influence health. Students will study selected environments and systems that influence health. Emphasis is on analysis of concepts, theories, and research related to factors that influence health.

N502 Nursing Theory I (3 cr.) Focus is on evaluating the factors and issues influencing the development of theory in nursing. Theoretical terminology and criteria for the evaluation of theories are examined. Linkages applied between theory, practice, and research are explored.

N530 Policy and Practice Perspectives in Advanced Nursing Practice (2 cr.) Introduction to policy development in health care and advanced nursing practice within the context of the larger society. Provides a basis for understanding political forces, including government, industry, and economic constraints, that shape nursing and health care delivery. Strategies by which nursing influences development of health policy through political involvement are considered.

N532 Advanced Nursing Practice Roles (2 cr.) Exploration of the components of the advanced practice role and how the organization influences and is influenced by the advanced practice nurse. Leadership, organizational and role theories are examined within the health care delivery systems. Introduces students to principles of resource allocation and analysis of cost effectiveness of outcomes in a variety of health care settings.

N534 Ethical and Legal Perspectives in

Advanced Practice Nursing (2 cr.) Major ethical theories are introduced and the principles underlying ethical health care practice are analyzed. Students examine selected concepts and principles of ethics and law within a framework of ethical decision making for advanced nursing practice.

R500 Nursing Research Methods I (3 cr.)

Provides a survey of research in nursing. Topics include critique of research literature, research designs, sampling, data collection and measurement strategies, relating research and theory, developing researchable problems, and utilizing theory.

R590 Nursing Study (1-3 cr.) P: R500 and R505. A guided experience in identifying a researchable nursing problem and in developing and implementing a research proposal.

R600 Nursing Research Methods II (3 cr.) P:

R500. Focus is on in-depth analysis and decision strategies for selecting and evaluating appropriate research designs, sampling methods, data collection methods, measurement strategies, instrument development, and data analysis in the development of research investigations.

R699 Master's Thesis in Nursing (1-6 cr.) With approval of the thesis committee, students conduct an empirical study of a nursing problem.

R900 Continuation in Study or Thesis (1 cr.)

Following enrollment in R590 Nursing Study (3 cr.) or R699 Master's Thesis in Nursing (6 cr.), the student must enroll every semester and first summer session in R900 (a pseudocourse) until the study or thesis has been completed.

Other Courses**C550 Pediatric Health Assessment (3 cr.)**

Enables students to learn psychomotor skills required for performing physical examinations. Provides theoretical basis to begin process of physical diagnoses of health and illness. 5 clinical hrs./wk.

C551 Health Maintenance of the Pediatric

Client (5 cr.) P: C550. P or C: C553. Provides the basis for synthesizing health status information for nursing interventions aimed at encouraging children and families to assume responsibility for the prevention of illness and the promotion and maintenance of health. 10 clinical hrs./wk.

C555 Advanced Nursing Care of Children and

Families I (6 cr.) P: C550, C611. This course prepares advanced practice nurses for the specialized care of children and their families. Complex, unique, or challenging health issues are examined. Students develop skills in critical thinking, ethical decision making, and facilitating behavioral change to assume a leadership role in improving health outcomes. 15 non-lecture contact hours.

C556 Advanced Nursing Management of the

Pediatric Client (2 cr.) P: C551; C: C553. Enables the student to use research data and theoretical knowledge in supporting advanced nursing practice in primary health care nursing.

C661 Psychosocial Assessment Strategies in Pediatrics and Women's Health Nursing (3 cr.)

P: Statistics. Focuses on strategies to assess psychosocial health status. Assessment tools and conceptual frameworks will be analyzed. Purpose of assessment strategy, considerations for administration, technical evaluation, and implications for nursing practice will be discussed.

C666 Collaborative Clinical Practice in

Pediatric Primary Health Care (5 cr.) Seminar provides students with the opportunity to present and discuss complex, multi-faceted clinical situations with faculty and peers. The clinical component provides students with the opportunity to develop advanced clinical skills in pediatric primary health care settings. Emphasis is on continuity and comprehensiveness of nursing interventions with pediatric clients. 25 clinical hrs./wk.

C670 Advanced Nursing Care of Children and

Families II (3 cr.) P: C555. This course prepares advanced practice nurses to function effectively in leadership roles within multi-disciplinary health care systems/organizations specifically focused on children and their families. Critical issues that impact the practice environment are explored. Students develop skills in facilitating evidence-based practice for specific populations of children and their families. 10 non-lecture contact hours.

D610 Pain: Its Pathophysiology, Assessment, and Management (3 cr.)

In-depth study of the theoretical concepts of pain. Theories are evaluated for their potential use in the delivery of nursing care. Emphasis is on the assessment and management of pain. 5 clinical hrs./wk.

D700 Nursing Research Seminar (2-3 cr.)

This seminar for predoctoral/postdoctoral nursing students (a) provides an opportunity for career socialization, (b) facilitates achievement of individual research goals, and (c) enables students to experience the give and take of a writing work group.

D740 Legal and Ethical issues in Nursing

Research (3 cr.) P: R500, N502, and N534. This course includes analysis of legal and moral theories and principles related to research in nursing and health care as a basis for analysis of moral/legal dilemmas in research. Students debate issues that create tension between the quest for knowledge and the moral and legal claims of society.

D741 The Legal/Ethical Issues for Nurses in Health Care Administration (3 cr.)

P: R500, N502, and N534. This course provides a review of the basic tenets of ethics and law related to health care administration. The role of the nurse in health care administration is emphasized.

D742 Legal and Ethical Issues in Nursing

Education (3 cr.) P: R500, N502, and N534. This course deals with the application of ethics, social philosophy, and legal doctrines to problems of nursing education. It assists the learner to analyze and reflect on moral and legal issues relevant to educational practices.

D751 Nursing Seminar (3 cr.) P: D607 and R600. Provides opportunities for students to pursue in-depth study about phenomena of concern to nursing and to conduct nursing research. Each D751 course emphasizes the conduct of research in one of the following topic areas: health dynamics, self-care decision-making, stress and coping, pain, and vulnerability.

D752 Directed Study (3 cr.) P: D751. Students will continue study in a topic area covered in a D751 seminar by taking D752 Directed Study in the same area. In addition, a specific directed study (D752) on health promotion is offered, with the D751 topic areas of vulnerability and self-care decision making as prerequisites. 5 clinical hrs./wk.

F570 Assessment of Individuals, Families and

Communities (3 cr.) This course enables students to develop advanced practice nursing skills in individual health assessment of infants, children, adults and aging people. In addition, students develop skills in family and community assessment.

F572 Primary Health Care of Children

(2 cr. didactic, 1 cr. clinical for FNP majors)

Enables students to develop a knowledge base for clinical decision making in assessment and provision of primary health care nursing for children and families. Topics include health promotion/maintenance, disease prevention, diagnosis and treatment of common acute and stable chronic illnesses in children. 5 clinical hrs./wk.

F574 Primary Health Care of Adults

(2 cr. didactic, 1 cr. clinical for FNP majors)

Enables students to develop a knowledge base for clinical decision-making in the assessment and management of primary health care for adults and families. Topics include health promotion/maintenance, disease prevention, and diagnosis and treatment of common acute and stable chronic illnesses in adults. 5 clinical hrs./wk.

F576 Primary Health Care of Women

(2 cr. didactic, 1 cr. clinical for FNP majors)

Enables students to develop a knowledge base for clinical decision making in the assessment and provision of primary health care for women and families. Topics include health promotion/maintenance, disease prevention, diagnosis and treatment of common acute and stable chronic illnesses in women. 5 clinical hrs./wk.

F578 Primary Health Care of Families—Clinical

(5 cr.) Enables the FNP student to develop a practice base for clinical decision making in the assessment and management of health care of families. The course includes identification of health needs, nursing interventions for the prevention of illness, and health promotion. 25 clinical hrs./wk.

G513 Physiology of Maternal-Child (1-2 cr.)

In-depth study of biophysical and behavioral aspects of human development, while considering genetic, embryologic, and developmental physiological components. This course may be repeated for a maximum of 4 credits.

G552 Advanced Nursing Care of Pregnant Women (6 cr.) P: Y550. Prepares nurse practitioners to deliver primary health care to pregnant women in ambulatory health care settings. The identification of health needs and nursing interventions for the prevention of illness and the promotion and maintenance of health are included. Emphasizes the independent and collaborative function of the nurse practitioner. 20 clinical hrs./wk.

G553 Women, Health, and Culture (3 cr.) P: Consent of instructor. Focus on feminist and cultural theory and research, applicable to women and their families within the context of contemporary society and culture throughout the life span.

G555 Management of the Well Woman (5 cr.) Enables students to develop a knowledge base for clinical decision making in the management of primary health care for well women. Emphasis is directed toward clinical competency in the care of well women throughout their lives. Topics are directed toward gynecologic care. 20 clinical hrs./wk.

G558 Women, Health, and Society (3 cr.) P: G553 or consent of instructor. Overview of women's health concerns locally, regionally, nationally, and internationally, and the impact of social systems on the well-being and health of women and their families. A variety of frameworks will be compared, contrasted, and synthesized in relation to women's health-related theory.

H537 Community Epidemiology (3 cr.) This research course presents methodological and analytical techniques to summarize health-related indicators in populations and provides opportunities to assess mainstream and multicultural populations through existing data sets. Epidemiologic techniques will form the basis for these population assessments.

H540 Community Assessment (3 cr.) This course focuses on concepts and methods for the assessment of a mainstream and multicultural community's strengths and needs. Students will collect and analyze secondary data for selected communities, analyze health indicators, conduct a community assessment, and delineate implications for advanced practice nursing.

H544 Community Development and Organization for Health (3 cr.) The purpose of this course is to critically analyze ethical principles, theories, concepts, and research of community development and organization for health, and to consider their application in mainstream and multicultural communities. Students develop an evaluation research proposal to study the effects of community development efforts.

H546 Action Research and Community Health Policy (3 cr.) Analysis of action research as a method of scientific inquiry for social and policy change. Working with mainstream and multicultural community groups, students design and conduct action research projects. Based on research results, recommendations for social and policy change and further policy research are made.

H548 Community-Based Nursing Practicum (3-6 cr.) Students conduct a practicum experience in order to synthesize theory and research related to

program development or evaluation of community-based intervention in selected settings such as home care, occupational health, schools, and community health centers. Mainstream and multicultural community experiences and activities are independently planned to meet student career goals. 15-30 clinical hrs./wk.

H630 Community Health Planning and Implementation (4 cr.) P: H540. Presentation of concepts, theories, and research related to community health planning, implementation, and evaluation. In conjunction with the community, students develop a health plan and evaluation aimed at ameliorating the health problem identified in H540. Aspects of the plan are implemented, and an appropriate community health-nursing role is identified. Seminar and community experience. 4 clinical hrs. 5 clinical hrs./wk.

H734 Advanced Model Building in Community Health Nursing and Health Policy (3-6 cr.) P: H733. Students will be directly involved in policy development and will evaluate models of policy making for community health nursing. Hypotheses related to the conceptual model will be tested in the policy setting using empirical data.

J595 Topical Seminar (2-4 cr.) Seminar topic to be announced each semester.

J690 Readings in Clinical Nursing (1-3 cr.) Topic arranged depending on the needs and interests of the student.

J692 Independent Study in Nursing (1-6 cr.) Individual assignments arranged.

L560 Case Management in Integrated Health Care Systems (3 cr.) Traces the evolution of case management models in human services, assesses recent scholarship on implementation and evaluation in various health care delivery settings, examines dynamics of case management role, and explores future models within systems of managed care.

L573 Organizational Behavior: Nursing (3 cr.) Introduction to administration of nursing by relating behavioral science and organizational and administrative theories to the delivery of health services, with an emphasis on organizational behavior.

L574 Administrative Management in Nursing (3 cr.) P: L573. Content derived from contemporary environmental, personnel, and organizational issues related to the administration of nursing services with emphasis on management principles and processes.

L575 Corporate and Public Policy for Nursing Executives (3 cr.) This course is designed to prepare nurse administrators for active policy-making participation in health care organizations, professional associations, and governmental agencies. The focus of the course is on managerial decisions and on building coalitions for policy at the organizational, local, regional, national and international levels.

L579 Nursing Administration Practicum (3-6 cr.) P: L574 and V610. A practicum experience designed for synthesis of theory and practice. Agency observation and activities are independently planned. Includes group seminars. 15 clinical hrs./wk.

L650 Data Analysis for Clinical & Administrative Decision Making (3 cr.) Focuses on understanding, manipulating, and analyzing quantitative data in nursing and health care. Includes use of computer-based systems for data management and statistical analysis. Students learn application and interpretation of multivariate statistical models for decision making.

L671 Financial Management: Nursing (3 cr.) Designed to acquaint nurses with budget preparation and fiscal management of a nursing unit or division. Methods of obtaining personnel input, estimating costs, and cost justification are analyzed in depth.

L773 Marketing Strategies for Nursing (3 cr.) P: D606. Theories related to marketing models in nursing are studied as they relate to the entire set of exchange relationships. Practice in using a theory or model is provided.

L774 Theory Development in Nursing Administration (3 cr.) P: D606. Selected administrative models and theories are critiqued relative to their application for nursing administration. Practice in the specific critique of one theory or model is provided.

L775 Organizational Theories in Nursing (3 cr.) P: D606. An analysis of existing organizational theory for the purpose of identifying, extending, or modifying theory for application in the nursing service or education sectors.

L776 Leadership in Nursing (3 cr.) P: D606. A study of selected role, leadership, system, social exchange, and organizational theories and their related research to form a base for differentiation and integration of administrative roles in academic nursing administration.

M552 Science of Nursing Diagnosis and Treatment (3 cr., 2 didactic, 1 clinical) P: 10 credits of core. Focuses on nursing's unique contribution to client/patient care and on scientific basis for nursing practice. Critical thinking skills in diagnosis and treatment are emphasized. Clinical experience includes design, implementation, and evaluation of innovations for treating pain. 5 clinical hrs./wk.

M554 Functional Enhancement (3 cr., 2 didactic, 1 clinical) P: M552. Focus is on assessments and diagnoses of impairments contributing to functional disabilities and the critique of current therapeutics to remediate or prevent impairments. Innovative theory/research-based therapeutics to enhance physical and cognitive functioning will be examined. Clinical experiences include the design, implementation, and evaluation of innovations. 5 clinical hrs./wk.

M556 Symptom Management (3 cr., 2 didactic, 1 clinical) P: M552. Focus is on application of science to practices that facilitate self-management (nurse management when necessary) of illness-related symptoms. Clinical experiences include assessments and diagnoses of non-disease-based etiologies that contribute to symptoms, design, implementation, and evaluation of nursing therapeutics to facilitate symptom prevention or reduction. 5 clinical hrs./wk.

M559 Stress and Coping: Counseling to Promote Function (3 cr.) P: M552. Theories and research relevant to stress and stress management are explored with emphasis on the attainment of situational stress counseling skills to promote optimal functioning. Students are required to provide direct care to patients/clients who have a known or predicted biodissonance and to utilize the nursing process in clinical application of appropriate theory and research. 5 clinical hrs./wk.

M560 Enhancing Health Behaviors Through Psycho-Educational Intervention (3 cr.) P or C: M559. Focus is on application of science to design, implement, and evaluate psycho-educational interventions to influence health care decisions and behaviors. Clinical experience includes development, implementation, and evaluation of a patient/family psycho-educational program. 5 clinical hrs./wk.

M561 Advanced Practice Roles in Nursing of Adults (3 cr.) P: M559; P or C: M560. Offers graduate students the opportunity to synthesize theories and experiences pertinent to role development/modification and socialization in advanced practice roles in the nursing care of adults. 10 clinical hrs./wk.

M562 Advanced Concepts in Critical Care (3 cr.) P: 15 credits of major. Seminars and clinical experience focus on application of science to nursing practices to enhance cost-effective clinical outcomes of critically ill adults who are sensitive to nursing therapeutics. 5 clinical hours./wk.

P510 Psychopharmacology (3 cr.) Considers indications, therapeutic uses, neurophysiological mechanisms of action, and side effects of the major classifications of psychotropic drugs. Relevant research is examined as is clinical application pertinent to current psychiatric mental health practice, including therapeutic management, psychodynamics, and combination of drugs with other treatment modalities.

P515 Psychiatric/Mental Health Assessment in Advanced Psychiatric Nursing (3 cr.) Methods and skills for completing a comprehensive mental health assessment are emphasized. Content includes criteria for DSM, psychiatric nursing diagnosis, ICD, and functional abilities, developmental status, and cultural influences. Students become familiar with standardized assessment tools commonly used in psychiatric/mental health settings. 5 clinical hrs./wk.

P551 Advanced Practice in Child/Adolescent Psychiatric/Mental Health Nursing (3 cr.) Treatment theories and research related to children/adolescents and their families are examined to foster development of the advanced practice role. Sociopolitical issues in child/adolescent psychiatric nursing are examined. Students develop advanced practice skills in child/adolescent psychiatric/mental health nursing issues in a clinical practicum. 5 clinical hrs./wk.

P558 Advanced Practice in Adult Psychiatric/Mental Health Nursing (3 cr.) Students examine treatment theories and research related to mental illness in adults to foster the development of advanced practice psychiatric nursing. Sociopolitical issues related to advanced practice in

Adult Psychiatric Nursing are examined. Clinical experience is formed on the development of advanced practice skills. 5 clinical hrs./wk.

P651 Psychiatric/Mental Health Nursing with Families (3 cr.) Theoretical formulations and research related to developmental and functional processes in families are examined for their relevance in designing and implementing nursing interventions. Biopsychosocial formulations are used to understand the reciprocity of individual and family function and dysfunction. Learning experiences include analysis of family therapy simulations and a family therapy practicum. 5 clinical hrs./wk.

P654 Group Interventions in Advanced Psychiatric Nursing (3 cr.) The student will demonstrate an understanding of group treatment as a therapeutic modality in the advanced practice of psychiatric/mental health nursing. Various models of group intervention are analyzed to determine their relevance for meeting specialized needs of clients across the life span. Practicum required. 5 clinical hrs./wk.

P668 Consultation and Community Mental Health (3 cr.) Students examine and evaluate models for mental health consultation and community mental health interventions. Students will analyze and differentiate various strategies for mental health interventions that involve at-risk populations in a multicultural society. Contemporary mental health policy issues related to advanced practice nursing are discussed. Students complete a consultation project. 5 clinical hrs./wk.

P671 Advanced Clinical Practice in Psychiatric/Mental Health Nursing I (3 cr.) Students engage in advanced psychiatric nursing practice with selected populations. Students further define and expand their practice of psychiatric/mental health nursing based on the integration of theory, research, self-evaluation, and clinical supervision. A variety of approaches and issues of service delivery are explored. 5 clinical hrs./wk.

P672 Advanced Clinical Practice in Psychiatric/Mental Health Nursing II (3 cr.) In this practicum, students expand their practice to indirect care responsibilities, including clinical supervision, evaluation of treatment environments, program development, and interdisciplinary collaboration. Students examine social, legal, economic, and ethical issues to develop goals for future professional development and contributions to nursing. 10 clinical hrs./wk.

P850 Internship: Psychiatric/Mental Health Nursing (6 cr.) P: completion of major and minor area of study in Doctor of Nursing Science program. The internship is the last course in the Doctor of Nursing Science program in psychiatric/mental health nursing. Students take on an extensive clinical research experience related to the development of the knowledge and skills necessary for conducting clinical research and for implementing and evaluating prevention and intervention programs. 30 clinical hrs./wk.

R505 Measurement and Data Analysis (3 cr.) Principles and applications of scientific measurement, data summarization, inferential statistics, and practical derivations of the general linear model.

Considers the research purpose and the phenomenon under study as determinants of measurement techniques and data analysis.

R601 Instrument Development for Health Behavior I (2 cr.) P: R600. The purpose of this course is to provide an opportunity for the student to gain expertise in developing an instrument to measure health behavior. Content focuses on theoretical foundations of measurement, item construction, questionnaire design, and content analysis.

R602 Instrument Development for Health Behavior II (2 cr.) P: R601. The purpose of this course is to provide an opportunity for the student to develop expertise in the testing of an instrument to measure health behavior. Content focuses on data collection, item analysis, validity and reliability assessment, and manuscript preparation to report psychometric properties.

R610 Qualitative Methods for Nursing Research (3 cr.) Seminar on the use of qualitative methods in scientific inquiry in nursing. Content includes the role of theory in inquiry, types of qualitative methods, ethical considerations, evaluation of trustworthiness of data, and research design.

R800 Dissertation Seminar (3 cr.) In collaboration with the student's dissertation chair, dissertation development is facilitated. The seminar is a forum for students to explore with their peers research problem development, theoretical foundations, methodology, and data analysis to launch their dissertation research. Format and procedures for progression in the dissertation process are also discussed.

R899 Dissertation in Nursing (1-8 cr.) Research project is conceptualized, conducted, and written.

S674 Management of the Acutely Ill Adult 1 (6 cr.) This course focuses on assessment, diagnosis, and collaborative management of adults who are acutely/critically ill or are experiencing exacerbation of a chronic health problem. Clinical focus is on the role of the acute care nurse practitioner working with a multidisciplinary team to facilitate and accelerate the patient's return to optimal health. 15 clinical hrs./wk.

S675 Management of the Acutely Ill Adult 2 (6 cr.) P: S674. This course focuses on assessment, diagnosis, and collaborative management of adults who are acutely/critically ill or are experiencing exacerbation of a chronic health problem. Clinical focus is on the role of the acute care nurse practitioner working with a multidisciplinary team to facilitate and accelerate the patient's return to optimal health. 15 clinical hrs./wk.

S676 Management of the Acutely Ill Adult 3 (6 cr.) P: S674 and S675. This course focuses on assessment, diagnosis, and collaborative management of adults who are acutely/critically ill or experiencing exacerbation of a chronic health problem. Clinical focus is on the role of the acute care nurse practitioner working with a multidisciplinary team to facilitate/accelerate the patient's return to optimal health. 15 clinical hrs./wk.

T615 Nursing Curriculum (3 cr.) Focus is on the process of curriculum development within a conceptual framework. Emphasis is also directed toward current nursing curriculum issues.

T617 Evaluation in Nursing (3 cr.) Focus is on the integration of the concepts and processes of evaluation and evaluation-attending activities into a nursing education framework.

T619 Computer Technologies (3 cr.) Provides nurse educators with an opportunity to acquire knowledge and skills for using computer technologies to support the teaching-learning process. Emphasis is given to theoretical frameworks that guide the selection, use, and integration of computer technologies in nursing education programs.

T670 Teaching of Nursing (3-6 cr.) P: Master of Science in Nursing or equivalent, and consent of instructor. Focus is on seminar and guided experiences in teaching of nursing, including planning, developing, implementing, and evaluating classroom and clinical instruction. 5 clinical hrs./wk.

W540 Writing for Professional Nursing Publication (3 cr.) This 3-credit course is for graduate students wanting to learn how to write for nursing publication. The course is co-taught by editors of nursing journals. Students will submit a draft of an article and receive editorial review.

Y512 Advanced Concepts in Gerontology (3 cr.) P: Introductory/survey course in gerontology and consent of instructor. Enables students to synthesize theoretical and practical concepts from different disciplines to meet the primary health care needs of elderly adult clients and their families.

Y515 Pathophysiology (4 cr.) Provides advanced knowledge of Pathophysiology as the foundation for nursing management in the health care of adults.

Y535 Dynamics of Family Health Care (3 cr.) Provides students with opportunities to study families within the community context. Consideration is given to theories of family functioning and roles in family health care, using family assessment tools and other nursing intervention strategies.

Y550 Physical Health Assessment (3 cr.) Enables students to learn psychomotor skills required for performing physical examinations. This course also provides the theoretical basis to begin the process of physical diagnoses of health and illness. 5 clinical hrs./wk.

Y552 Health Maintenance for Adults (5 cr.) Provides the basis for synthesizing health status information for nursing interventions aimed at helping adults and families to assume responsibility for the prevention of illness and the promotion and maintenance of health. 15 clinical hrs./wk.

Y554 Advanced Nursing Management—Adult (2 cr.) Enables the student to use nursing research data and theoretical knowledge to support advanced nursing practice in primary health care nursing.

Y555 Collaborative Clinical Practice in Primary Health Care Nursing (4 cr.) Provides opportunities for students to develop advanced clinical practice in primary health care nursing. Seminar provides for the analysis of nursing management through care presentations. 20 clinical hrs./wk.

Y556 Advanced Nursing Management of the Oncology Client (4 cr.) P: Y515, Y550, Y552, Y562,

or consent of instructor. Provides the nurse practitioner concentrating in oncology with an overview of advanced nursing management for adults with cancer. Students will learn how to facilitate patient transition through screening and detection, diagnosis, acute care, rehabilitation, and the terminal phase. 5 clinical hrs./wk.

Y562 Pathophysiology of Cancer (2 cr.) P: Y515, Y550, or consent of instructor. A pathophysiological approach to nursing care of clients with localized or invasive cancer.

Y565 Interdisciplinary Practicum in Gerontology (3 cr.) P: Introductory/survey course in gerontology, Y512, and consent of instructor. Provides the student, as an advanced practitioner and interdisciplinary team member, with the opportunity to participate in the creation or change of health policies and/or programs affecting elderly people. Consists of a seminar and a practicum. 10 clinical hrs./wk.

Y612 Pharmacology for Nurse Practitioners (3 cr.) This course provides a basis for understanding the use of pharmacotherapeutic agents for clients across the life span. The course builds upon the pharmacologic knowledge base acquired at the baccalaureate level in nursing.

R.N. to B.S.N. Mobility Option

B304 Professional Nursing Seminar I (3 cr.) This course focuses on core theoretical concepts of professional nursing practice, including health, wellness, illness, self-care, and caring, disease prevention, and health promotion. Students will be expected to explore theoretical premises and research related to the unique wellness perspectives and health beliefs of people across the life span. Students will learn to develop care outcomes consistent with maximizing individual potentials for wellness. Students will complete a needs assessment as part of the practicum experience.

B404 Professional Nursing Seminar II (3 cr.) This course focuses on the application of nursing theory and research findings in restoring and maintaining individual and family functioning for those dealing with multi-system alterations. Students will explore the ethical, legal, and moral implications of treatment options and identify tactics to maintain nursing effectiveness in their facilitation of individuals and families through the health care system. Students will complete a scholarly analysis as part of their practicum experience.

B244 Comprehensive Health Assessment (2 cr.) C: B245. This course focuses on helping students acquire the skills necessary to conduct a comprehensive health assessment that includes the physical, psychological, social, functional, and environmental aspects of health. The process of data collection, interpretation, documentation, and dissemination of assessment data will be addressed.

B245 Comprehensive Health Assessment: Practicum (2 cr.) C: B244. Students will have the opportunity to use interview, observation, percussion, palpation, inspection, and auscultation in assessing clients across the life span in simulated and actual environments.

H365 Nursing Research (3 cr.) P: Approved statistics course or permission of instructor. This course focuses on the development of students' skills in using the research process to define clinical research problems, and in determining the usefulness of research in clinical decisions related to practice. The importance of critiquing nursing and nursing-related research studies will be emphasized in identifying applicability to nursing practice.

S472 A Multi-System Approach to the Health of the Community (3 cr.) This course focuses on the complexity and diversity of groups or aggregates within communities, along with their corresponding health care needs. Through a community assessment of health trends, demographics, epidemiological data, and social/political-economics issues in local and global communities, the student will be able to determine effective interventions for community-centered care.

S473 A Multi-System Approach to the Health of the Community: Practicum (2 cr.) P: B304, B404, B244, B245. Students will have the opportunity to apply the concepts of community assessment, program planning, prevention, and epidemiology to implement and evaluate interventions for community-centered care of groups or aggregates. Professional nursing will be practiced in collaboration with diverse groups within a community.

S474 Applied Health Care Ethics (3 cr.) This course is designed to introduce the student to major ethical theory, principles, and models for the recognition, analysis, and resolution of ethical dilemmas in health care practice.

S481 Nursing Management (2 cr.) P: B304 and B404. This course focuses on the development of management skills assumed by professional nurses, including delegation of responsibilities, networking, facilitation of groups, conflict resolution, leadership, case management, and collaboration. Concepts addressed include organizational structure, change, managing quality and performance, workplace diversity, budgeting and resource allocation, and delivery systems.

S482 Nursing Management: Practicum (3 cr.) Students will have the opportunity to apply professional management skills in a variety of nursing leadership roles.

S483 Clinical Nursing Practice Capstone (3 cr.) P: S481 and S472 or permission of instructor. Students will have the opportunity to demonstrate competencies consistent with program outcomes and to refine their nursing care practice skills. Students will collaborate with faculty and a preceptor in choosing a care setting, planning and organizing a learning experience, and practicing professional nursing in a safe and effective manner.

S484 Research Utilization Seminar (1 cr.) C: S483. This course focuses on students' abilities to refine their critical/analytical skills in evaluating clinical research for applicability to nursing practice. Students will examine the role of evaluation, action research, and research findings in assuring quality of nursing care and in solving relevant problems arising from clinical practices.

S485 Professional Growth and Empowerment (3 cr.) C: S481 or permission of instructor. This course focuses on issues related to professional practice, career planning, personal goal-setting, and empowerment of self and others. Students will discuss factors related to job performance, performance expectations and evaluation, reality orientation, and commitment to lifelong learning.

School of Nursing Administration

ANGELA BARRON MCBRIDE, Ph.D., M.S.N., B.S.N., R.N., F.A.A.N., *University Dean*

SHARON FARLEY, Ph.D., M.S.N., B.S.N., R.N., F.A.A.N., *Executive Associate Dean for Academic Affairs*

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Department Chairpersons

JUANITA KECK, D.N.S., B.S.N., *Chair, Department of Adult Health*

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SHARON SIMS, Ph.D., M.S., B.S., R.N., *Chair, Department of Family Health*

Director

JOYCE SPLANN KROTHER, D.N.S., R.N., *Director of Nursing, Bloomington*

Student Services

Undergraduate Academic Advisement

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HELEN MCKURAS, M.S., *Academic Counselor, IUPUI*

GREGORY WIBLE, M.S., *Academic Counselor, IUPUI*

LISA WRASSE, M.S., *Academic Advisor, IU Bloomington*

NANCY SUNDERWIRTH, B.S., R.N., *Academic Advisor, IUPU Columbus*

Faculty

Allen, Patricia, M.S.N., B.S.N. (*Indiana University, 1999*), *Clinical Instructor*

Anderson, Minnie, M.N., B.S.N. (*University of Washington, 1975*), *Assistant Professor*

*Austin, Joan, D.N.S., M.S.N., B.S.N., R.N., F.A.A.N. (*Indiana University, 1981*), *Distinguished Professor*

*Backer, Jane, D.N.S., M.S.N., B.S.N. (*Indiana University, 1990*), *Associate Professor*

*Bakas, Tamilyn, D.N.S., M.S.N., B.S.N. (*Indiana University, 1996*), *Assistant Professor*

*Baker, Constance, Ed.D., M.Ed., M.A., B.S. (*Columbia University, 1977*), *Professor*

*Basolo-Kunzer, Mary, D.N.S., M.S.N., B.S., R.N. (*Rush University, 1984*), *Associate Professor*

*Bean, Cheryl, D.S.N., M.S.N., B.S.N. (*University of Alabama, 1987*), *Associate Professor*

*Beausang, Carol, Ph.D., M.S., B.A. (*University of Illinois, 1996*), *Assistant Professor*

Beck, Lori, M.S.N., B.S.N., A.D.N. (*Indiana University, 1990*), *Visiting Lecturer*

*Beckstrand, Janis, Ph.D., M.S., B.S., R.N., F.A.A.N. (*University of Texas at Austin, 1978*) *Associate Professor*

*Belcher, Anne, D.N.S., M.S.N., B.S.N. (*Indiana University, 1998*), *Associate Professor*

Bell, Peggy, M.S.N., B.S.N., A.A.S. (*University of Wisconsin Oshkosh, 1993*), *Clinical Assistant Professor*

*Bennett, Susan, D.N.S., M.S.N., B.S.N. (*Indiana University, 1990*), *Professor*

*Billings, Diane, Ed.D., M.S.N., B.S.N., R.N., F.A.A.N. (*Indiana University, 1986*), *Associate Dean for Teaching/Information Systems and Professor*

*Boland, Donna, Ph.D., M.S., B.S., A.A.S. (*University of Utah, 1986*), *Associate Dean for Undergraduate Programs and Associate Professor*

Bostrom, Carol, M.S.N., B.S.N. (*University of Illinois, 1975*), *Clinical Assistant Professor*

*Brooks-Brunn, JoAnn, D.N.S., M.S.N., B.S.N. (*Indiana University, 1990*), *Assistant Professor*

*Canty-Mitchell, Janie, Ph.D., M.S.N., B.S.N., A.A., Dipl. (*University of Miami, 1993*), *Assistant Professor*

Carlisle, Pamela, Ph.D., M.A., B.S.N., A.S.N. (*Indiana University, 1992*), *Visiting Lecturer*

*Cass, Penny, Ph.D., M.S., B.S., R.N. (*University of Michigan, 1988*), *Dean of Nursing, Indiana University Kokomo, and Professor*

Chalko, Barbara, M.S.N., B.S.N. (*Indiana University, 1983*), *Clinical Instructor*

*Champion, Victoria, D.N.S., M.S.N., B.S.N., F.A.A.N. (*Indiana University, 1981*), *Associate Dean for Research and Distinguished Professor*

Clark, Carol, B.S.N. (*Indiana University, 1992*), *Associate Instructor*

*Delunas, Linda, Ph.D., M.S., B.S.N., R.N. (*University of Illinois, 1997*), *Assistant Professor*

DeMeester, Deborah, M.S.N., B.S.N. (*Indiana University, 1990*), *Clinical Assistant Professor*

Devich, Lynn, M.S.N., B.S.N. (*Wayne State University, 1985*), *Clinical Assistant Professor*

Dobbs, Cynthia, M.S.N., B.S.N. (*Indiana University, 1977*), *Clinical Assistant Professor*

*Dobrzykowski, Teresa, D.N.S., R.N., C.S., A.N.P. (*Indiana University, 1998*), *Assistant Professor*

*Donnelly, Eleanor, Ph.D., M.S., B.S. (*State University of New York at Buffalo, 1984*), *Associate Professor*

Dybel, Patricia, M.S.N., B.S.N. (*Indiana University, 1976*), *Visiting Lecturer*

Ebright, Patricia, D.N.S., M.S.N., B.S.N. (*Indiana University, 1998*), *Assistant Professor*

*Ellett, Marsha, D.N.S., M.S.N., B.S.N. (*Indiana University, 1996*), *Assistant Professor*

Embree, Jeni, M.S.N., B.S.N., A.S.N. (*Indiana University, 1999*), *Clinical Instructor*

Eoff, Mary Jo, M.S.N., B.S.N. (*Indiana University, 1974*), *Clinical Instructor*

*Farley, Sharon, Ph.D., M.S.N., B.S.N., F.A.A.N. (*University of Texas, 1984*), *Executive Associate Dean for Academic Affairs and Professor*

*Fife, Betsy, Ph.D., M.S.N., B.S.N. (*Indiana University, 1990*), *Senior Scientist*

*Finke, Linda, Ph.D., M.S.N., B.S.N. (*Miami University, 1985*), *Professor*

*Fisher, Mary, Ph.D., M.S.N., B.S.N. (*Kent State University, 1984*), *Associate Professor*

Giesler, R. Brian, Ph.D., B.A. (*University of Texas, 1993*), *Assistant Scientist*

*Gilman, Linda, Ed.D., M.S.N., B.S.N. (*Indiana University, 1988*), *Associate Professor*

Hammann, Sharon, M.S.N., B.S.N., J.D., (*Indiana University, 1966*), *Associate Professor*

*Hanna, Kathleen, Ph.D., M.S.N., B.S. (*University of Pittsburgh, 1990*), *Associate Professor*

Harrell, Sharon, M.S., B.S.N., (*Butler University, 1967*), *Associate Professor*

Henderson, Ramona, P.N.P., M.S.N., B.S.N. (*Indiana University, 1999*), *Clinical Assistant Professor*

*Hendricks, Susan, Ed.D., (*Ball State University, 2000*), *Assistant Professor*

Hoang, Ngoan, M.P.H., B.A. (*Tulane University, 1973*), *Assistant Professor*

*Horton-Deutsch, Sara, D.N.Sc., M.S., B.S.N. (*Rush Medical College, 1993*), *Associate Professor*

*Huff, Marchusa, D.N.S., M.S.N., B.S.N. (*Indiana University, 1998*), *Associate Professor*

- *Jeffries, Pamela, D.N.S., M.S.N., B.S.N. (*Indiana University, 1996*), Assistant Professor
- *Keck, Juanita, D.N.S., B.S.N. (*Indiana University, 1983*), Chair, Department of Health and Associate Professor
- Kost, Gail, M.S.N., B.S.N. (*University of Pennsylvania, 1982*), Visiting Lecturer
- *Krothe, Joyce, D.N.S., M.S.N., B.S.N., R.N. (*Indiana University, 1991*), Director of Nursing, Bloomington, and Associate Professor
- Kurt, Marjorie, M.S.N., B.S.N. (*Indiana University, 1986*), Clinical Assistant Professor
- Laidig, Juanita, Ed.D., M.S.N., B.S.N., R.N. (*Indiana University, 1995*), Associate Professor
- *Linde, Beverly, Ph.D., M.S., B.S.N. (*University of Michigan, 1989*), Clinical Assistant Professor
- *Lowenkron, Ann, D.N.S., M.A., B.S. (*Indiana University, 1995*), Assistant Professor
- *Lyon, Brenda, D.N.S., M.S.N., B.S.N., F.A.A.N. (*Indiana University, 1981*), Associate Professor
- Markley, Valerie, M.S.N., B.S.N. (*Indiana University, 1977*), Assistant Professor
- *Martin, Joanne, Dr.P.H., M.S., B.S., F.A.A.N. (*University of California, Berkeley, 1985*), Assistant Professor
- *Mays, Rose, Ph.D., M.S.N., B.S. (*University of Texas, 1987*), Associate Dean for Community Affairs and Associate Professor
- McAdams, Sharon, M.S.N., B.S.N. (*Indiana University, 1991*), Clinical Assistant Professor
- *McBride, Angela Barron, Ph.D., M.S.N., B.S.N., F.A.A.N. (*Purdue University, 1978*), University Dean and Distinguished Professor
- *McDaniel, Anna, D.N.S., M.A., B.S. (*Ball State University, 1991*), Associate Professor
- *McKay, Marian, Ed.D., M.S.N., B.S.N., R.N. (*Spalding University, 1998*), Assistant Professor
- Misinski, Maureen, M.S.N., B.S.N. (*Rutgers College of Nursing, 1976*), Visiting Lecturer
- Moore, Susan, D.N.S., M.S.N., B.S.N. (*Indiana University, 1994*), Lecturer
- *Morrissey, Suzanne, D.N.S., B.S.N. (*Indiana University, 1984*), Acting Associate Dean for Graduate Programs and Associate Professor
- Mueller, Mary, Ph.D., M.S.N., B.S.N. (*Case Western Reserve, 1988*), Clinical Assistant Professor
- Palazzolo, Lisa, M.S.N., M.Ed., B.S.N. (*University of Missouri, 1995*), Clinical Assistant Professor
- Partridge, Roselle, M.S.N., B.S.N. (*Indiana University, 1976*), Clinical Assistant Professor
- Pathtel, Pamala, M.S.N., B.S.N., A.S.N. (*Indiana State University, 1997*), Visiting Lecturer
- *Pesut, Daniel, Ph.D., M.S.N., B.S., C.S., F.A.A.N. (*University of Michigan, 1984*), Chair, Department of Environments for Health and Professor
- *Pierce, Patricia, D.N.S., M.S.N., B.S.N. (*Indiana University, 1989*), Indiana University South Bend and Assistant Professor
- Poore, Ella, M.S.N., B.S., (*Indiana University, 1964*), Associate Professor
- *Rains, Joanne, D.N.S., M.A., B.A., R.N. (*Indiana University, 1990*), Dean of Nursing, Indiana University East and Associate Professor
- *Rawl, Susan, Ph.D., M.S., B.S.N., (*University of Illinois at Chicago, 1989*), Assistant Professor
- Reising, Deanna, Ph. D., M.S.N., B.S. (*Indiana University, 1999*), Assistant Professor
- *Richardson, Virginia, D.N.S., M.S.N., B.S.N. (*Indiana University, 1994*), Assistant Dean for Student Affairs and Associate Professor
- *Riner, Mary Beth, D.N.S., M.S.N., B.S.N. (*Indiana University, 1998*), Assistant Professor
- *Rogge, Mary Madeline, Ph.D., F.N.P., B.S.N. (*University of Texas, 1985*), Clinical Associate Professor
- *Rooda, Linda, Ph.D., M.S., B.S.N., R.N. (*Purdue University, 1990*), Dean of Nursing, Indiana University Northwest, and Professor
- *Rowles, Connie, D.S.N., M.S.N., B.S.N. (*University of Alabama at Birmingham, 1992*), Clinical Associate Professor
- *Russell, Kathleen, D.N.S., M.S.N., B.S.N. (*Indiana University School of Nursing, 1993*), Associate Professor
- *Schlapman, Nancy, Ph.D., M.S., B.S.N., R.N. (*University of Wisconsin-Milwaukee, 1994*), Associate Professor
- *Schwecke, Lee, Ed.D., M.S.N., B.S.N. (*Indiana University, 1992*), Associate Professor
- *Sims, Sharon, Ph.D., M.S., B.S. (*University of Utah, 1986*), Chair, Department of Family Health, and Associate Professor
- *Sloan, Rebecca, Ph.D., M.S.N., B.S.N. (*University of Kentucky, 1995*), Assistant Professor
- Stephenson, Evelyn, M.S.N., B.S.N. (*Indiana University, 1983*), Clinical Assistant Professor
- *Stern, Phyllis, D.N.S., M.S.N., B.S., F.A.A.N. (*University of California, San Francisco, 1976*), Professor
- *Stokes, Lillian, Ph.D., M.S.N., B.S.N. (*Indiana University, 1997*), Director of Diversity and Enrichment and Associate Professor
- *Stone, Cynthia, Dr.P.H., M.S.N., B.S.N. (*University of Pittsburgh, 1995*), Clinical Associate Professor
- Stoten, Sharon, M.S.N., B.S.N., A.A.S. (*Indiana University, 1984*), Clinical Assistant Professor
- *Swenson, Melinda, Ph.D., M.S.N., B.S.N. (*Indiana University, 1991*), Associate Professor
- Taylor, Carol, M.S.N., B.S.N. (*Indiana University, 1975*), Clinical Assistant Professor
- Vinten, Sharon, M.S.N., B.S.N. (*Indiana University, 1986*), Clinical Assistant Professor
- *Wallace, Linda, Ed.D., M.S.N., B.S.N., R.N. (*Ball State University, 2000*), Associate Professor
- *Welch, Janet, D.N.S., M.S.N., B.S. (*Indiana University, 1996*), Assistant Professor
- Welch, Joyce, M.S.N., B.S.N. (*Indiana University, 1991*), Clinical Instructor
- Wellman, Debra, M.S.N., B.S.N., L.P.N. (*Indiana University, 1994*), Clinical Assistant Professor
- Wood, Sandra, M.S.N., B.S.N. (*Wayne State University, 1971*), Clinical Assistant Professor
- Woolf, Shirley, M.S.N., B.S.N. (*Indiana University, 1987*), Clinical Assistant Professor
- *Zwirn, Enid, Ph.D., P.N.A., M.P.H., B.S. (*Indiana University, 1996*), Associate Professor



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Contents

579 IUPU Columbus History

579 Mission Statement

579 Statement by the Dean

579 The Academic Programs

579 Indiana University Degrees

579 Purdue University Degrees

579 Purdue University School of Technology
Degrees

580 Admission to Undergraduate Programs

580 University College

580 Academic Expectations for Remaining in the
Program

580 Financial Aid

580 Special Expenses

580 Awards and Scholarships

**581 Columbus-Specific Academic Policies
and Procedures**

581 Registration

581 Grade Appeals

581 Web Sites

581 Organizations and Activities

581 Clubs

581 Special Campus Events

581 Spring Awards Banquet

581 Diploma Ceremony

581 Courses

581 Administrative Officers and Faculty

581 Administrative Officers of IUPU Columbus

581 Administrative Officers of Purdue University
School of Technology at Columbus

581 Full-time Faculty

583 Adjunct Faculty

IUPU Columbus History

On August 17, 1970, IUPUI Columbus opened its offices and classrooms and became a permanent extension of IUPUI. This event was the result of several years of discussion among representatives of Indiana University, Purdue University, Franklin College, the Columbus Chamber of Commerce, and many other interested citizens of the area. The establishment of IUPUI Columbus was a natural outgrowth of the intense interest in post-secondary education in Columbus: Indiana University courses had been offered in the city since 1941, and Purdue University courses had been offered since 1942.

Under the directorship of Dr. Emerson Gilbert, IUPUI Columbus offered classes in various locations of Columbus. In 1971, the university moved to the former Civilian Personnel Building at Bakalar Municipal Airport. In 1974, a move was made to the Technical Training Building, and the first advisory board was named. Dr. Paul R. Bippen became the university's second director in 1977, a position he holds today, but with the title of dean.

In 1982, a capital fund drive was inaugurated, and the goal of \$900,000 was topped by \$5,000 in gifts and pledges. With the approval of \$150,000 from the Indiana General Assembly for a building expansion project, renovation of the IUPUI Columbus facility was completed in October of 1985, with an expansion of over 60 percent of the pre-renovation square footage.

The Purdue Statewide Technology program was established at IUPUI Columbus in 1984. In 1987, an additional 11 acres of land was deeded to the IU Board of Trustees by the City of Columbus. Delivery of off-campus credit courses to six locations near Columbus began in 1989. Also in 1989, a small building on the campus grounds was renovated to become a science research facility. In 1990, IUPUI Columbus celebrated its twentieth anniversary. A child care program, offered jointly with Ivy Tech State College, was initiated.

In 1990–91, new landscaping was placed around the building. In the spring of 1991, the Diploma Ceremony, including both IUPU Columbus and Purdue University School of Technology students, was initiated. In 1991–92, a café was created and became heavily used. The American Business Seminar, a cultural exchange/business program involving students from Chartres, France, was initiated. In 1992–93, IUPUI Columbus received reaccreditation by the North Central Association; touchtone registration was implemented; an Elderhostel program was initiated.

In 1994, IUPUI Chancellor Gerald Bepko announced the change of the name IUPUI Columbus to IUPU Columbus. Negotiations were completed to transfer academic and administrative responsibilities for Purdue Continuing Education offerings in Versailles to IUPU Columbus. Three key messages for the university were established: (a) we are IU and Purdue; (b) we provide university education on a personal level; (c) we are a good investment.

In 1996, a new logo was created for the campus. The Center for Economic Education of IUPU Columbus was created. An articulation agreement for ten mandated courses with Ivy Tech State College was negotiated. In 1997, the name Purdue Statewide Technology was changed to Purdue University School of Technology at Columbus, and the title of the Site Administrator was changed to Director. In 1999, the auditorium was renovated into office spaces for Student Services personnel. The Indiana General Assembly approved \$750,000 in planning monies for the design of a learning facility to be located between IUPU Columbus and Ivy Tech State College Columbus. This facility will house administrative offices of IUPU Columbus, Purdue University School of Technology, Ivy Tech State College, the Bartholomew Consolidated School Corporation, and the Office of Workforce Development. In addition to offices, it will house classrooms, an auditorium, an information/technology center, and other spaces for use by all students, faculty, and staff of the educational institutions in Columbus and by all area residents. Academic programs requested by residents and by local business and industry will be offered in this facility. During the 2000–2001 academic year, the following degree programs were approved by the IU and Purdue Boards of Trustees and the Indiana Commission for Higher Education: Associate of Science in Chemistry, Bachelor of Science in Business, Bachelor of Science in Education, Bachelor of Science in Nursing (the RN-BSN Mobility Option), Bachelor of Science/Bachelor of Arts in Psychology, and the Master of Business Administration.

Mission Statement

The mission of Indiana University-Purdue University Columbus, a campus site of Indiana University-Purdue University Indianapolis, is to identify and respond to post-secondary education needs and enhance the quality of life of the residents of our 10-county service area by providing Indiana University and Purdue University degrees, programs, courses, and faculty expertise.

Statement by the Dean

IUPU Columbus is located one hour south of Indianapolis in the south-central part of Indiana. The 1900 students enrolled come from Bartholomew County and the 11 surrounding counties. Two master's degrees, eight bachelor's degrees, and 10 associate degrees can be completed in their entirety on the Columbus campus, or students can transfer to IUPUI or any IU or Purdue campus to finish one of the numerous degrees offered there.

The 35 full-time and 140 adjunct IUPU Columbus faculty are committed to helping students learn; many are actively engaged in research that they bring into the classroom and in which they include their students. Students enjoy the personalized attention offered by both faculty and staff, in addition to the affordable tuition, convenience, and high quality of IU and Purdue programs.

We encourage students to become an active part of the campus by joining one of the student clubs on campus; contributing their artistic talents in writing, photography, or drawing to *Literalines*, IUPU Columbus' magazine of the arts; or offering their

service to the university through the Student Ambassador program. We are here to serve students; to assist them in developing their skills, understanding, and perspective; and to help them reach their academic goals. We invite them to visit the Columbus campus of IUPUI.

The Academic Programs

Degrees Offered at IUPU Columbus

The following degree programs are offered at IUPU Columbus:

INDIANA UNIVERSITY DEGREES

Master's Degrees

Business Administration

Bachelor's Degrees

Business
Elementary Education
General Studies
Nursing (RN-BSN Mobility Option)
Psychology
Sociology*

Associate Degrees

General Studies
Liberal Arts
Nursing (LPN-ASN Mobility Option)

PURDUE UNIVERSITY DEGREES

Associate Degree

Chemistry

PURDUE UNIVERSITY SCHOOL OF TECHNOLOGY DEGREES

Master's Degree

Technology

Bachelor's Degrees

Computer Information Systems Technology
Organizational Leadership & Supervision

Associate Degrees

Computer Graphics Technology
Computer Integrated Manufacturing Technology
Computer Technology
Electrical Engineering Technology
Mechanical Engineering Technology
Organizational Leadership and Supervision

*Approval pending from Indiana Commission for Higher Education

Admission to Undergraduate Programs

Admission to undergraduate programs at IUPUI Columbus is the same as at IUPUI.

University College

University College is the academic unit on the Indiana University-Purdue University Columbus campus that provides a common gateway to degree programs available to entering students. This academic unit provides a setting where students, faculty, and staff share in the responsibility for making IUPUI Columbus a supportive and challenging environment for successful learning.

University College exists to help students adjust to college life. Because students are diverse, the needs of students are diverse. Thus, University College offers an array of academic services and courses to meet the diverse needs of students in this region.

Academic Expectations for Remaining in the Program

These are the same at IUPUI Columbus as they are at IUPUI.

Financial Aid

The IUPUI Office of Student Financial Aid Services coordinates the financial aid program on behalf of IUPUI Columbus. All policies, procedures, and guidelines that are enforced at IUPUI are also applicable for students attending IUPUI Columbus. Questions regarding financial aid policies and procedures can be addressed to the Financial Aid Advisor at the IUPUI Columbus campus in the Student Services Office or by calling (812) 348-7271 or (800) 414-8782, ext. 7271.

Special Expenses

In addition to the tuition, which is the same as that of IUPUI, there are special fees relating specifically to the IUPUI Columbus campus. These include:

1. Field Experience in Teacher Education Fee: This fee is mandatory for the following courses: EDUC M101, M201, M301, and M401.
2. Student Activity Fee: This fee is mandatory if the student has one or more courses on campus. This fee is allocated to the student organizations and other areas to support student services and activities in order to keep direct costs to students at a minimum. Examples of uses for this fee are payment of tutors for the writing and math centers, the annual Diploma Ceremony and Awards Banquet, the student newsletter, as well as activities sponsored by the various student groups.

3. Late Enrollment Fees (Non-Refundable): Late enrollment fees are assessed to all students enrolling after the close of the regular registration period.
4. Parking Fee: Students will be asked to pay a parking fee.
5. Technology Fee: Students will be asked to pay a technology fee. This fee makes it possible for the student to use the computer labs, to have access to the Internet and e-mail, and to take advantage of registration and advising through computerized means.

Awards and Scholarships

Student Ambassador Cost of 3 credit hours of tuition. Awarded each fall and spring. This is a performance-based scholarship based on an application and interview. Students will represent IUPUC by assisting the admissions office with recruitment of high school students. 2.0 semester GPA required for renewal. One or more credit of enrollment required.

Dean's Scholarship \$1,500 per year/\$750 per semester. Graduating high school seniors who are in the top 5 percent of their class; have an SAT of 1200 or ACT of 27; enroll full time at IUPUC. Renewable for up to \$6,000. Recipient must have a 3.0 GPA each semester to have the scholarship renewed. No application required. Full-time enrollment required.

Top 25% Scholarship \$1,000 per year/\$500 per semester. Graduating high school seniors who are in the top 25 percent of their class; have an SAT of 990 or ACT of 21; enroll full time at IUPUC. Renewable for up to \$4,000. Recipient must have a 3.0 GPA each semester to have the scholarship renewed. No application required. Full-time enrollment required.

New Millennium Scholarship \$500 per year/\$250 per semester. Graduating high school seniors who are in the top 50 percent of their class; have an SAT of 990 or ACT of 21; enroll full time at IUPUC. Renewable for up to \$1,000. Recipient must have a 3.0 GPA each semester to have the scholarship renewed. No application required. Full-time enrollment required.

Outstanding GED Scholarship \$1,000 per year/\$500 per semester. GED recipient who is an entering freshman; degree seeking with a GED score of 62 or higher. Recipient must enroll full time and demonstrate competency in English W131 and Math 111. Renewable for up to \$4,000. Recipient must have a 3.0 GPA each semester to have the scholarship renewed. No application required. Full-time enrollment required.

Speak Easy Scholarship \$50-\$100 per fall semester. This scholarship is awarded to IUPUC students who participate in the annual Speak Easy Speak Contest each spring semester. Students will be judged on presentation style, relevance of speech to topic selected. First place, \$100; second place, \$75; third place, \$50. Minimum of 2.0 semester GPA required. Three or more credits of enrollment required. Nonrenewable.

Dr. Richard Thompson Scholarship \$100 per Fall semester. Returning IUPUC students are eligible to apply for this scholarship. Selection is based on completed application, essay, merit, and financial need. Minimum of 2.5 semester GPA required. Six or more credits of enrollment required. Nonrenewable.

Nawzat Hafez Scholarship \$200 per Fall semester. This scholarship was created in the memory of Nawzat Hafez, who at the age of 45 returned to college to earn a bachelor's degree in history. Students who are over the age of 40 and single parents (female) are eligible for this scholarship. Selection is based on application, GPA, essay; and must have completed at least 12 credit hours at IUPUC. Minimum of 3.0 semester GPA required. Six or more credits of enrollment required. Nonrenewable.

Glenn Klipsch Community Service Scholarship \$1,000 per year/\$500 per semester. Students who participate in community service activities are encouraged to apply for this scholarship. Selection is based on application, community service work completed, and essay. Student must perform a minimum of 20 hours of community service per semester. Minimum of 3.0 semester GPA required. Full-time enrollment required. Nonrenewable.

Fran Rust Scholarship \$100 per fall semester. Awarded to a female student who is over the age of 25 and has completed at least 26 credit hours at IUPUC. Selection is based upon an application, essay, merit, and financial need. Minimum of 2.5 semester GPA required. Six or more credits of enrollment required. Nonrenewable.

April Perkinson Scholarship \$600 per year/\$300 per semester. Must have completed at least 56 credit hours and be pursuing a degree in elementary education. Selection is based on application, essay, merit, and financial need. Minimum of 3.0 semester GPA is required. Six or more credits of enrollment required. Nonrenewable.

Shirley Mae Mittlestat Scholarship \$250 toward purchase of textbooks in fall semester. For freshman, sophomore, or junior students pursuing a degree in elementary education. Designed to assist with the purchase of textbooks for the fall semester. Selection based on application, merit, financial need, and essay. Minimum of 2.5 semester GPA required. Full-time enrollment required. Nonrenewable.

*Please note that many scholarships require a scholarship application as well as admission to IUPUC by the scholarship deadline. Applicants must submit all materials by the due date. Scholarships which evaluate financial need must complete the FAFSA by March 1st.

Columbus-Specific Academic Policies and Procedures

Registration

IUPU Columbus offers course registration by computer, touchtone telephone, on the web, and in person. Dates and times for registration for continuing students, new students, and final registration for all students are listed in the calendar portion of the class schedule. Continuing student registration is by appointment.

Computer registration enables students to register from a home or office computer with appropriate communications software or from the computer laboratory on campus. The web registration is available utilizing any computer with Internet connectivity and current software. Touchtone registration enables students to register from any location with the use of a touchtone telephone. Pulse, multi-line, cellular telephones, and telephones with call-waiting feature will not work for touchtone registration. See the class schedule for instructions in using the computer and touchtone registration systems.

Grade Appeals

Students who think that an error has been made in grading should contact the instructor of the course directly. If a resolution cannot be reached in this discussion with the instructor, the students should complete a formal grade change request form for the chairperson of the Academic Affairs Committee. Cases in which there is clear evidence of unfair treatment in the assigning of grades may be submitted to the Grade Appeals Committee for a formal hearing. This process must be initiated within 30 days after the grade is mailed by the university to the student's address of record. Contact the Student Services Center for appeals procedures.

Web Sites

Insite
insite.indiana.edu

IUPU Columbus
www.columbus.iupui.edu

IUPUI Office of Student Financial Aid Services
www.iupui.edu/finaid

Organizations and Activities

Clubs

Students can take advantage of many extracurricular opportunities on the IUPU Columbus campus. They may participate in the social activities planned for the French students who are part of the American Business Seminar each October, attend the free Brown

Bag Lunch Lectures, or join one of the academic clubs on campus. Clubs have been formed by students interested in anthropology, Campus Crusade for Christ, English, psychology, performing arts, computers, math, and education. Students may also join the Student Activities Council, a club whose members plan social and service events, such as student-faculty-staff "socials," Halloween parties, Christmas gatherings, and benefits for local not-for-profit organizations. Students interested in using their creative talents in writing, photography, or drawing may submit their work to *Literelines*, the IUPU Columbus magazine of the arts.

Special Campus Events

Spring Awards Banquet

Each spring an academic awards banquet is held on the second Friday of May to honor students who have excelled academically. The banquet is attended by nearly all of the faculty and staff on campus, plus their spouses or guests, and the students who will be honored that night.

Diploma Ceremony

IUPU Columbus holds a Diploma Ceremony for graduates who have taken all or most of their courses at IUPU Columbus. During this formal ceremony, graduates receive a symbolic diploma. The graduates may attend the IUPUI graduation, the IUPU Columbus Diploma Ceremony, or both. The ceremony in Columbus is very personalized because of the small number of students (between 80 and 90) who participate (relative to the thousands participating in the graduation ceremonies in Indianapolis).

Courses

The following courses are specific to IUPU Columbus:

AST A115 Birth and Death of the Universe (3 cr.) Introduction to cosmology. Traces the ideas describing the origin and evolution of the universe from ancient geocentric cosmologies to the Big Bang cosmology.

COAS J151 Career Exploration and Development (1 cr.) P: freshman or sophomore standing. Development and integration of career planning and academic area. Students will follow individually designed career plans leading to understanding of personal values, interests, and abilities in relation to vocational options and academic process. This course does not count toward the 112 credit hour requirements within the College of Arts and Sciences.

CPT 107 Computers and Software Packages (3 cr.) This service course has been designed to meet the needs of IU business and accounting students and provide a rigorous introduction to the contemporary world of business computing. The instructional goal of this class is to help students develop their analytical and problem solving skills. Technical computer skills, such as making spreadsheets, electronic mail, Internet tools, or manipulating a database program, are included in the lab component of this course.

Computer literacy, which is necessary to compete and survive in today's global business economy, is included in the lecture component. This course does not apply toward the CPT major.

HER H495 Columbus Architecture (1 cr.) Uses the architecture of Columbus as illustration to help in the understanding of the basic concepts of architecture. The course answers the question: why is the architecture of Columbus important? Many of the buildings in Columbus will be visited and studied first-hand.

HPER E100 Fitness Walking (1 cr.) Course will provide participants with knowledge of general fitness and guidelines to exercise safely. This course will help students become more aware of their current fitness level and how to improve their overall level of health. This course is a participation course and students will practice skills learned.

Administrative Officers and Faculty

Administrative Officers of IUPU Columbus

Paul R. Bippin, Ed.D., Dean

Marvin B. Rytting, Ph.D., Assistant Dean for Academic Affairs and Associate Professor, Psychology

Jay R. Howard, Ph.D., Assistant Dean for Budget and Planning and Associate Professor, Sociology

Susan J. Montgomery, Director of Student Services and Manager of Off-Campus Programs

Lynne A. Sullivan, Director of University Relations

Dennis R. White, Director of Administration and Fiscal Affairs

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Nancy Wilson Head, Assistant Director

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University

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Harter, Nathan

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 Alexander, Keith, English/History
 Allmon, Sue, Computer Technology
 Ansari, Mohammed, English/Folklore
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 Aspy, Rob, Business
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 Ball, Jennifer, History
 Barton, Bill, Psychology
 Batts, Bruce, Business
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 Feiock, Ray, Mathematics
 Ferdon, Mary, Political Science
 Foldenauer, Gene, Spanish
 Fox, Christie, Women's Studies
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 Tuken, Fethiye, Sociology
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Willey, Herschel, Education

Wills, Howard, Business/English/Technical
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Winslow, James, Mathematics

Wolfel, Jr., Richard, Geography

York, Jerry, Organizational Leadership & Supervision

Young, Jack, Chemistry

INDIANA UNIVERSITY SCHOOL OF OPTOMETRY

800 E. Atwater Avenue
Bloomington, IN 47405
(812) 855-1917
www.opt.indiana.edu



Contents

- 411 IU School of Optometry Mission
- 411 Degree Programs
- 411 Clinics
- 411 Teaching, Research, Service
- 411 For More Information

School of Optometry

The IU School of Optometry is one of Indiana University's health profession schools and is located on the Indiana University Bloomington campus. The school has a strong clinical presence at its Indianapolis Eye Care Center near the IUPUI campus at 501 Indiana Avenue. It is expanding its clinical and research programs in cooperation with other IU health sciences programs, including the IU School of Medicine. The IU School of Optometry is also a collaborating partner, along with dentistry, medicine, nursing, allied health, public and environmental affairs, law, social work, and other schools and agencies in the graduate program in public health at IUPUI.

Mission

The mission of the IU School of Optometry is to protect, advance, and promote the vision, eye care, and health of people worldwide by

- Preparing individuals for careers in optometry, the ophthalmic industry, and vision science
- Advancing knowledge through teaching, research and service

Degree Programs

The school offers one of the best programs in the country for the education of optometrists. The American Optometric Association defines an optometrist as a primary health care provider who examines, diagnoses, treats, and manages diseases and disorders of the visual system. Students in the four-year Doctor of Optometry (O.D.) program study in a rigorous curriculum that prepares them to provide outstanding eye care to all patients. The students learn to diagnose and treat patients with refractive errors, binocular vision problems, ocular diseases and other eye-related problems. Practical experience is gained in the school's clinics in Indianapolis and Bloomington and on rotations to different clinical settings in and outside of Indiana.

The school also provides education for people who complement the work of optometrists: opticians and optometric technicians. Students in the

Optician/Technician program at the IU School of Optometry earn a two-year Associate of Science (A.S.) degree. They learn how to test visual acuity, depth perception, and field of vision, and how to help people select eyewear and learn to care for contact lenses. They also learn how to fill optical prescriptions and make spectacles. Opticians and optometric technicians are a valuable part of the eye care team.

Students interested in research can join the graduate program in vision science and study for the M.S. and Ph.D. degrees. This is an interdisciplinary program primarily for those who wish to prepare for teaching and/or research in the sciences related to vision. Students participate in research projects in such areas as ocular physiology, psychophysics, optics, corneal physiology, infant vision, contact lenses, and low vision. They work with world-renowned faculty members to add to the body of knowledge of the vision sciences.

Clinics

The IU School of Optometry provides a broad range of clinical services for both the general public and the experience of its students. The **Atwater Eye Care Center**, located on the Bloomington campus, provides the public with primary vision care services, contact lens fitting and care, binocular vision diagnosis and treatment, and pediatric care.

The Community Eye Care Center is located on the west side of Bloomington. This busy clinic provides primary vision care, pediatric care, and experience in sports vision, low vision, and other aspects of vision care.

The Indianapolis Eye Care Center, located next to the IUPUI campus, provides primary eye care, contact lens care, low vision services and pediatric care to the campus and to the general public.

The Guanajuato Eye Care Center is located in the Hospital General in the city of Guanajuato, Mexico, and is operated in cooperation with Mexico's Department of Infants and Family. Optometrists and students at this clinic provide primary eye care.

The Rural Clinics Program, with support from the Indiana State Department of Health, provides eye and vision care services to underserved, low-income residents of rural areas in five southern Indiana counties.

Teaching, Research, and Service

School of Optometry faculty members help to fulfill the school's mission by providing outstanding instruction. In addition, the school has excellent research facilities, both as part of its graduate program in vision science and as part of the Borish Center for Ophthalmic Research. There are many opportunities for students in both the doctor of optometry and graduate programs to participate in ongoing studies.

The school is also strongly committed to service for the general public and to the education of its students. Some of the activities include providing vision screenings to the homeless, eye care to uninsured/low-income patients, school screenings, and helping to support new optometric education programs in other countries. Students participate in many of these activities, on campus and in the community. Members of the School of Optometry community also travel together with volunteers from organizations like Volunteer Optometric Service to Humanity to underdeveloped countries to provide examinations and spectacles to needy persons. This outreach effort led to the establishment of the school's clinic in Guanajuato, Mexico. Faculty, students, and staff join together to bring vision care to all people.

For more information

Visit our Web site at www.opt.indiana.edu

e-mail iubopt@indiana.edu

For information about academic requirements, call (812) 855-1917 or write:

Office of Student Administration
Indiana University School of Optometry
800 E. Atwater Avenue
Bloomington, IN 47405-3680

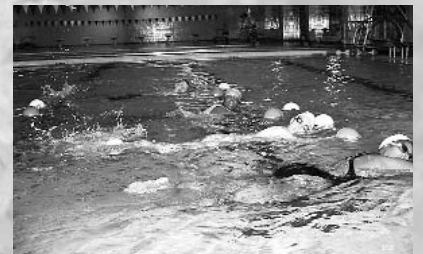
We welcome your visit and can provide advising appointments as well as tours of the School of Optometry and the Bloomington campus.



INDIANA UNIVERSITY SCHOOL OF PHYSICAL EDUCATION

Physical Education/Natatorium (PE) 250
901 W. New York Street
Indianapolis, IN 46202
Physical Education Information: (317) 274-2248

Department of Tourism, Conventions, and Event
Management Information:
(317) 274-2599
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Contents

- 415 History of the School of Physical Education**
- 415 Mission
- 415 Location
- 415 The Academic Program**
- 415 Policies Governing the Academic Program—School of Physical Education
- 415 Degree Requirements
- 415 The Department of Physical Education
- 415 The Department of Tourism, Conventions, and Event Management
- 416 Advising and Special Options
- 416 Advising
- 416 Independent Study
- 416 Pass/Fail Option
- 416 Excessive Withdrawal Policy
- 416 Special Credit Opportunities
- 416 Academic Expectations
- 416 Academic Integrity
- 416 Academic Load and Absences
- 416 Academic Standing, Probation, Dismissal, and Reinstatement
- 417 Student Grievance Procedures
- 417 Student Ombuds Office
- 417 Graduation
- 417 Intercampus Transfers
- 417 Other Physical Education Department Information
- 417 Uniforms
- 417 Camp Brosius
- 417 Internship Programs in Exercise Science and Fitness and Sports Studies
- 417 Internship Programs in Tourism, Conventions, and Event Management (TCEM)
- 417 Student Organizations
- 418 Awards and Scholarships
- 418 School Awards and Scholarships
- 418 Department of Physical Education Awards and Scholarships
- 418 Department of Tourism, Conventions, and Event Management (TCEM) Scholarships
- 418 Department of Physical Education Undergraduate Degree Programs**
- 418 Bachelor of Science—Physical Education
- 418 Teacher Education K-12 Track
- 419 Exercise Science Track
- 420 Exercise Science/Pre-Physical Therapy Track
- 420 Fitness and Sports Studies Track
- 421 Health Education Track
- 421 Athletic Training Track
- 421 Other Programs Offered in Physical Education and Related Areas**
- 421 Adapted Physical Education Minor
- 422 Dance Minor
- 422 Coaching Endorsement
- 422 Driver Education Endorsement
- 422 Aquatic Concentration
- 422 Business Minor
- 422 Certificate in Personal Training
- 422 Maintaining a Teaching License
- 423 Earning Certification to Teach
- 423 Department of Physical Education Graduate Degree Program**
- 423 Master of Science—Physical Education
- 424 Department of Tourism, Conventions, and Event Management (TCEM, formerly RHIT) Degree Programs**
- 424 Bachelor of Science in Tourism, Conventions, and Event Management (IU Degree)
- 424 Food Service and Lodging Supervision (Purdue Degree)
- 424 Cultural Heritage Tourism Certificate
- 424 Food Production Management Certificate
- 425 Lodging Management Certificate
- 425 Beverage Management Certificate
- 425 Events Management Certificate
- 425 Consumer and Family Science Transfer Program
- 425 Department of Physical Education (HPER) Courses**
- 425 Professional Preparation Program in Physical Education
- 428 Graduate Physical Education Courses
- 428 Elective Physical Education Program
- 430 Department of Tourism, Conventions, and Event Management (TCEM) Courses**
- 431 Foods and Nutrition (FN) Courses
- 431 Administrative Officers**
- 431 Department of Physical Education Faculty**
- 432 Department of Tourism, Conventions, and Event Management Faculty**

History of the School of Physical Education

The School of Physical Education is the oldest unit at Indiana University—Purdue University Indianapolis (IUPUI), and also the oldest existing school for the preparation of physical education teachers in the country.

The school was founded in New York City in 1866 as the Normal College of the American Gymnastic Union. It was established by the American Turners to prepare instructors for their gymnastics societies.

The school moved to Chicago in 1871 only to be burned out by the great Chicago fire, which forced it to return to New York, where it remained until 1873. The school then moved to Milwaukee, and settled finally in Indianapolis in 1907. During these years, the curriculum was continually expanded, from a four-month certificate program to a one-year, then a two-year, and eventually a four-year degree program. The curricular changes were in response to the ever-changing needs for trained professionals in other educational institutions.

The Normal College merged with Indiana University in 1941, when financial difficulties occurred. Under the merger, students attended the Normal College in Indianapolis for two years and completed their junior and senior years in Bloomington, where they earned the Bachelor of Science in Physical Education degree. This arrangement remained in effect until 1969, when the junior-year program was moved to Indianapolis, followed by the senior-year program in 1972. In the same year, the name of the college was changed to the School of Physical Education to reflect more closely the mission of the school as a training center for teachers of physical education.

Major changes in the physical education program were initiated at the beginning of the 1992 academic year. As a result of expanded professional demands, the academic program was divided into the three tracks of teacher education, exercise science, and general physical education. In 1994 the School of Physical Education added two new departments: the Department of Tourism, Conventions, and Event Management and the Department of Military Science.

Mission

The mission of the School of Physical Education at Indiana University—Purdue University Indianapolis is to prepare students for entry-level positions and advanced study, to contribute to the body of knowledge through creative and scholarly activities, and to serve the profession and the community. Through collaboration and interdisciplinary work with diverse populations, the School of Physical Education strives to enhance wellness, to improve quality of life, and to encourage leisurely pursuits.

The Department of Physical Education grants the Bachelor of Science in Physical Education degree. Students may select from three tracks (**exercise**

science with pre-physical therapy option, fitness and sports studies, K-12 teacher education) and a variety of minors, endorsements, concentrations, and certificates.

The Department of Tourism, Conventions, and Event Management offers a two-year degree in **food service and lodging supervision**. The program focuses on the skills needed by a supervisor, department head, or unit manager employed in any of the various fields of hospitality: food operations, lodging management, and/or institutional management.

A four-year degree, **tourism, conventions, and event management**, emphasizes tourism research and meeting, special events, and sport event planning to prepare graduates for management positions in a variety of profit and not-for-profit tourism organizations.

The Department of Recreational and Intramural Sports and the Department of Military Science also reside in the School of Physical Education.

Location

The School of Physical Education and the Indiana University Natatorium share a \$21.5 million facility located at 901 W. New York Street on the main campus of IUPUI. The complex is divided into deck, concourse, and bridge levels, covering approximately 200,000 gross square feet.

The deck level features weight-training and conditioning rooms, a 50-meter competitive pool, a diving pool, and a 50-meter instructional pool; the instructional pool is equipped with moveable bulkheads and floor so that the water depth may be adjusted to aid in instruction and recreation. A research suite for exercise physiology and biomechanics is located on the deck level.

The concourse level of the physical education wing has a large gymnasium, an auxiliary gymnasium, racquetball courts, and a student lounge.

The bridge level houses the administrative and faculty offices. From this level an enclosed overhead pedestrian walkway connects the physical education complex with the Education/Social Work Building across New York Street, where the three schools share classroom space.

Adjacent to the Physical Education/Natatorium Building is an Olympic-caliber 400-meter track and field stadium, plus outdoor fields for instructional, recreational, and competitive athletic events. The 28.7-acre outdoor facility also includes fields for softball, soccer, and touch football.

The National Institute for Fitness and Sport was created in 1985. Dedicated to promoting healthy, active lifestyles through research, education, and service, this nonprofit organization currently works in conjunction with the School of Physical Education and other departments of the university. It occupies a \$12 million, 120,000-square-foot facility located on the IUPUI campus and in White River State Park.

The Academic Program

Policies Governing the Academic Program—School of Physical Education

Degree Requirements

Students in the School of Physical Education are responsible for fully understanding and meeting all the requirements for graduation. Information regarding the program can be obtained by consulting this bulletin.

A minimum cumulative grade point average (GPA) of 2.0 (on a 4.0 scale) is necessary. Class standing is based on credit hours completed:

Freshman—26 or fewer

Sophomore—27-55

Junior—56-85

Senior—86

The Department of Physical Education requires a minimum of 124 credit hours for a Bachelor of Science degree. In the physical education major the department offers three tracks (exercise science with pre-physical therapy option, fitness and sports studies, teacher education), five minors (adapted physical education, athletic training, business, dance, health and safety), two endorsements (coaching, driver education), one concentration (aquatics), and a certificate in personal training (final approval pending). A capstone course is required of students in each of the three majors: an internship for exercise science and fitness and sports studies students, and student teaching for teacher education students. A minimum 2.5 cumulative grade point average is required for entry into the capstone course, and a minimum 2.0 cumulative grade point average is required to earn the bachelor's degree. A letter grade of C or better is required in English W131, English W231 and Communication R110, and none of these three courses may be taken by correspondence.

The **teacher education** (K-12) track prepares the student to meet K-12 physical education—teacher education certification requirements set by the state of Indiana. The **exercise science** track is designed for the individual who wishes to work in the corporate/community fitness setting or to pursue a graduate degree in exercise science, biomechanics, physical therapy, or a related health discipline. The **fitness and sports studies** track is directed to those interested in personal fitness training, sports programming, entrepreneur activities related to fitness and sports, and related fields.

The Department of Tourism, Conventions, and Event Management requires 64 credit hours for the Associate of Science degree and 124 for the Bachelor of Science degree.

The four-year and two-year degrees, as well as all certificate programs require a letter grade of C or better in courses from the major, as well as in the

general education courses of ENG W131, BUS X204, and COMM R110. The degree programs require 600 hours of work experience in a pre-approved tourism or hospitality organization. Students may complete the work experience with a paid or a not-for-pay position.

Advising and Special Options

Advising Each student in the School of Physical Education is assigned a faculty counselor who advises the student in program planning and assists with any academic questions or problems. All students are expected to obtain counseling each semester prior to enrollment.

Independent Study Work may be accomplished in absence for credit through the School of Continuing Studies. A student must have satisfied the entrance requirements of the School of Physical Education, however, before registering for such work if it is to be applied toward a degree. Special permission from the dean is required. Students may apply up to 18 credit hours of correspondence work from the School of Continuing Studies toward a degree in the School of Physical Education.

Pass/Fail Option Physical Education students may elect to take one course each semester with a grade of P (Pass) or F (Fail), with a maximum of two such courses each school year, including summer sessions. The student must elect to exercise this option early in the semester or summer session, per the timeline contained in the *Schedule of Classes*. Courses that satisfy school or degree program requirements may not be taken under this option.

Excessive Withdrawal Policy After eight withdrawals, a mandatory meeting between the student, advisor, and department chair will be held to identify the reason(s) for the withdrawals, discuss alternatives for course scheduling, and review the student's plan of study to determine if satisfactory progress is being made toward the degree objective. After 10 withdrawals, a mandatory meeting with the dean of the school will occur. A review of the previous meeting and reason(s) for subsequent withdrawals will determine if the student will be allowed to continue in the School of Physical Education.

Special Credit Opportunities

See department chair for procedures on special credit.

Academic Expectations

Student work in general education and major courses will include content and learning activities supporting the principles of undergraduate learning as defined by the faculty of the School of Physical Education. These five principles relate to students' competencies in the following areas: core skills (reading, writing, speaking, quantitative analysis, and use of information technology); critical thinking; intellectual depth, breadth, and adaptiveness; understanding society and culture; and integration and application of knowledge. These general education principles are defined on course syllabi. Faculty expect students to use software applications to prepare assignments, to use electronic mail to enhance communication and/or submit assignments, and to develop competencies with various campus technology resources (e.g., Insite,

Oncourse, internet browsers). Written work is to be of high quality (focused, organized, and with an introduction, purpose, sense of audience, thesis, and conclusion; appropriate sentence structure; variety; and correct spelling, grammar, and punctuation). Writing should reveal the student's ability to develop ideas with balanced and specific arguments. Papers should follow APA style unless another style is specified, and should give credit to original sources when ideas or materials of others are used.

Academic Integrity

Students are responsible for familiarizing themselves with the school's regulations concerning cheating and plagiarism, which appear as follows in the IUPUI *Faculty Handbook* VI-5:

Cheating is dishonesty of any kind with respect to examinations, course assignments, alteration of records, or illegal possession of examinations. It is the responsibility of the student not only to abstain from cheating, but, in addition, to avoid the appearance of cheating and to guard against making it possible for others to cheat. Any student who helps another student to cheat is as guilty of cheating as the student who was assisted. Students should also do everything possible to induce respect for the examining process and honesty in the performance of assigned tasks in or out of class.

Plagiarism is the claiming of the work of someone else as one's own. Honesty requires that any ideas or materials taken from another source for either written or oral use must be fully acknowledged. The language or ideas taken from another may range from isolated formulas, sentences, or paragraphs to entire articles copied from books, periodicals, speeches, databases, or the writings of other students. The offering of materials assembled or collected by others in the form of projects or collections without acknowledgement also is considered plagiarism. Any student who fails to give credit for ideas or materials taken from another source is guilty of plagiarism.

A faculty member who has evidence that a student is guilty of cheating or plagiarism shall initiate the process of determining the student's guilt or innocence. No penalty shall be imposed until the student has been informed of the charge and of the evidence upon which it is based, and has been given an opportunity to present a defense. If the faculty member finds the student guilty, the faculty member assesses a penalty within the course and promptly reports the case in writing to the dean of the school or comparable head of the academic unit. The report should include the names of any other students who may be involved in the incident and recommendations for further action. The dean, in consultation with the faculty member if the latter so desires, will initiate any further disciplinary proceedings and inform the faculty member of any action taken. In every case, a record of the offenses remains on file in the dean's office.

For further regulations, students should refer to IUPUI's *Code of Student Rights, Responsibilities, and Conduct* by the Board of Trustees of Indiana University. You may obtain a copy of the *Code* from the Dean's Office or view the text on the IUPUI Web site at www.iupui.edu.

Academic Load and Absences

Semester Academic Load A typical academic load is 12-18 credit hours, with an average load being approximately 15 credit hours. A typical load in a summer session is 6 credit hours. Students expecting to carry more than 18 credit hours per semester or 7 credit hours per summer session must have permission of the dean of the School of Physical Education and should have a minimum cumulative grade point average (GPA) of 3.0 (B), or have earned a B (3.0) average in their last full semester.

Academic Standing, Probation, Dismissal, and Reinstatement

Academic Standing Students who consistently maintain a GPA of 2.0 (C) or higher in both their cumulative and semester records are considered to be in good standing.

Academic Probation Students are on academic probation when either their semester GPA or their cumulative GPA is below 2.0 (C). Each student on academic probation will be so advised by a letter from the dean of the School of Physical Education. The student will be informed of all conditions and restrictions required for reestablishing good academic standing.

Dismissal Students are subject to dismissal when they have failed to attain a minimum of a 2.0 (C) average in any two consecutive semesters or when the cumulative GPA of the student who is on probation falls or remains below 2.0 (C). Each student who is dismissed will be so advised by a letter from the Office of the Dean of the School of Physical Education.

Reinstatement A dismissed student who wishes to be reinstated must contact the dean of the school to obtain an Application for Reinstatement. This application requires explanation of any extenuating circumstances that may have hindered academic performance, and a brief outline of future schedules and study plans. Each application will be considered on an individual basis, and will receive more favorable consideration if the student has sought advice about academic progress on previous occasions, and if academic records are close to the standards required for retaining the student. In order to allow time for each case to be reviewed on its own merits, petitions for readmission must be filed at least two weeks before the first day of classes.

The School of Physical Education typically does not consider petitions for immediate reinstatement. Dismissed students who believe that circumstances warrant consideration for immediate reinstatement must meet with the dean, who will determine whether or not an application for immediate reinstatement is warranted.

One Dismissal Students who have been dismissed once for academic reasons may appeal for reinstatement subject to the conditions stated above.

Two Dismissals Students who have been dismissed twice for academic reasons may not appeal for reinstatement for any enrollment period during the next calendar year.

Students who are reinstated by the school will have to meet prescribed standards of performance for the semester for which they are reinstated. Failure to meet these standards will result in dismissal.

Student Grievance Procedures

Students who feel they have been treated in an unfair or unethical manner by a member of the School of Physical Education faculty are encouraged to resolve their differences directly with the faculty member. When informal solutions do not appear possible, the following procedures should be observed.

Appeal for Grade Change A student may request a change of grade in a School of Physical Education course by filing a petition with the dean of the school. The petition, along with supporting evidence that the grade was improper, must be submitted to the Dean's Office (PE 251) no later than one calendar year following the final date of the term in which the course was taken.

Complaints of Unethical Treatment All academic personnel (faculty, part-time instructors, and advisors) are expected to conform to the *Code of Student Rights, Responsibilities, and Conduct* published in the Indiana University *Academic Handbook*. Students who feel they have been treated unfairly by a faculty member may lodge a complaint by following the procedures outlined in the *Code*, a copy of which may be obtained from the Dean's Office, PE 251.

Student Ombuds Office

The Student Ombudsperson provides impartial, objective, and confidential assistance to students, faculty/staff, and parents in situations involving students. The office assists in mediating or resolving specific complaints or conflicts. Contact the Student Ombuds Office for an initial, neutral, and confidential first step toward resolution. For information, contact the Student Ombuds Office, 274-3931, stuombud@iupui.edu.

Graduation

Residency Requirements for Graduation The student must complete at least 30 of the last 60 credit hours required for a specific degree program while in residence at the School of Physical Education at IUPUI. The 30 credit hours should include either one 12 credit hour regular semester or two 6 credit hour summer sessions.

Students in the two-year degree program must complete 15 of the last 24 credit hours required while in residence in the Tourism, Conventions, and Event Management (TCEM) department.

Degree Application A candidate for graduation must file a formal application for the degree with the school approximately one year prior to the expected date of graduation. The school will not be responsible for the timely graduation of students who fail to meet this requirement.

Graduation with Honors Indiana University recognizes high cumulative grade point averages (GPAs) by awarding degrees with the designations "Distinction," "High Distinction," and "Highest Distinction." Purdue programs recognize the top 10 percent of graduates with the designations

"Distinction" and "Highest Distinction." The designated individuals are presented honor cords to wear at the commencement exercises for IUPUI.

Intercampus Transfers

Temporary To transfer credit for an individual semester or for the summer from one campus to another campus of Indiana University, the student must file a temporary Intercampus Transfer Request with the School of Physical Education Recorder's Office on the campus currently being attended.

Permanent To transfer permanently from one campus to another campus of Indiana University, the student must file an Intercampus Transfer Request with the School of Physical Education Recorder's Office on the campus currently being attended. Advance notice is necessary to allow for the transfer of records and the validation of the student's eligibility to continue studies. Contact the School of Physical Education Records Office for details and deadline dates.

Other Physical Education Department Information

Uniforms Physical education majors wear uniform shirts and shorts for several professional preparation activity classes. Instructors indicate on the first day of class if uniforms will be required. Uniforms may be purchased at the IUPUI Bookstore in Cavanaugh Hall. White polo shirts and long navy pants are the required attire for physical education majors participating in professional field experiences off campus.

Swimming classes require a one-piece bathing suit. Warm-ups or street clothes are appropriate attire for the Student Lounge on the Concourse Level or the office area on the Bridge Level of the Physical Education/Natatorium Building.

Camp Brosius In 1921, the School of Physical Education established Camp Brosius at Elkhart Lake, Wisconsin, as a summer training camp for its physical education majors. The Indiana University Alumni Association currently operates the camp, with the IUPUI School of Physical Education classes on-site in mid-May and June. Physical education majors attend Camp Brosius for one intensive summer session early in their academic careers at IUPUI. HPER P271 Individual Sports and HPER R275 Dynamics of Camp Leadership comprise the course work for physical education majors. TCEM L391 Event Management Catering Laboratory meets at Camp Brosius. TCEM students complete laboratory requirements during camp. Students are expected to enroll for the required camp session following their first year of attendance at the school. Orientation sessions are held each spring prior to the actual camp session.

Internship Programs in Exercise Science and Fitness and Sports Studies

Students following the exercise science or fitness and sports studies tracks complete an internship with a community agency approved by the School of Physical Education. Prospective interns must have completed at least 30 semester hours in residence at IUPUI and at least 15 semester hours in the major. Students apply approximately one year prior to the expected internship placement. A minimum overall grade point

average (GPA) of 2.5 is required at the time of the application. The internship assignment will entail full-time work for 12 weeks (summer, fall, or spring). Only in exceptional cases will students be allowed to participate in an internship at their previous or present place of employment.

Internship Program in Tourism, Conventions, and Event Management (TCEM)

TCEM majors are required to complete a minimum of 600 hours of work experience in tourism/hospitality businesses. The internship should be completed after the sophomore year of attendance.

Student Organizations

Physical Education Student Organization (PESO) PESO exists to improve the quality of student life. Its activities include assimilating new students into the School of Physical Education program, representing the school in the shaping of university-wide policies and activities, helping students attain educational objectives, and promoting participation in student activities. The general membership of the organization is composed of full- and part-time majors in the Physical Education and the Tourism, Conventions, and Event Management degree programs.

Phi Epsilon Kappa This professional fraternity was organized in 1913 at the Indianapolis campus of the School of Physical Education's predecessor, the Normal College of the American Gymnastic Union Campus. It is dedicated to advancing interest in health education, physical education, recreation education, and safety education. It seeks to promote sound community relationships that support physical education programs. Eligibility criteria include a minimum 2.0 cumulative grade point average (GPA) earned at IUPUI in addition to participation in professional activities.

IUPUI Moving Company The IUPUI Moving Company is a performing dance company composed of students enrolled at IUPUI. Prospective members audition during the first week of the fall semester, when members and apprentices are taken into the company. Approximately 4-6 hours per week are spent in rehearsals, workshops, lecture-demonstrations, or performances. Members should be enrolled concurrently in a dance technique class while performing with the company. The repertoire consists of ballet, modern, jazz, and ethnic dance forms. The IUPUI Moving Company performs on campus, at professional conferences, and for elementary, middle school, and high school audiences.

Indiana Association for Health, Physical Education, Recreation, and Dance and the American Alliance of Health, Physical Education, Recreation, and Dance Students of the Department of Physical Education are encouraged to affiliate with this professional organization. Annual conferences and workshops, a professional journal, and a newsletter are among the membership benefits.

Tourism and Hospitality Society The Tourism, Conventions, and Event Management (TCEM) department sponsors this student organization to

expand students' knowledge about the tourism industry. Site visits and speakers are educational components. Social activities and fundraisers are also planned.

Awards and Scholarships

School Awards and Scholarships

Dean's Honor List Students in the School of Physical Education are recognized for outstanding academic achievement by having their names placed on the Dean's List. This award goes to all full-time students who have achieved a semester grade point average (GPA) of 3.3 or better.

Phillip K. Hardwick Scholarship Established in 1998, this scholarship recognizes a student in the School of Physical Education for outstanding community volunteerism or philanthropy.

Department of Physical Education Awards and Scholarships

Athenaeum Turners Scholarship The Athenaeum Turners of Indianapolis established this scholarship to honor a physical education major who demonstrates academic excellence and professional promise. The School of Physical Education was located at the Indianapolis Athenaeum from 1907 to 1970.

The Clara L. Hester Scholarship This coveted award is presented in the name of the past director of the Normal College of the American Gymnastic Union. Clara Hester served the school for 44 years; the award was established in 1978 to honor her. It is given to a full-time student majoring in physical education who has satisfied all academic criteria at the completion of the junior year. The recipient must use the award for academic programs in the Department of Physical Education at IUPUI.

Peg Hope Scholarship This scholarship is awarded to a student with a GPA of 2.5 or higher who demonstrates financial need and who has worked to defray the cost of his or her education.

The John Jordan Scholarship Recognizes an outstanding active member who emulates John Jordan, an outstanding former member of Alpha Chapter of Phi Epsilon Kappa.

The Lola L. Lohse Scholarship This scholarship is presented annually to a minority student who is majoring in physical education. The basis for the selection consists of involvement in extracurricular activities, student leadership, participation in professional organizations, and evidence of self-help in obtaining a college education. Selection is made by the faculty.

Rudolph L. Memmel Scholarship The Memmel Scholarship is given in honor and recognition of "Rudy" Memmel, former head of Physical Education for the Cincinnati, Ohio, Public Schools. Selection criteria include excellence of academic record and active involvement in activities related to the profession.

Phi Epsilon Kappa Scholarship Key Award These awards are presented to undergraduate

physical education majors who are outstanding scholars. The awards are of unique distinction and attest to the academic excellence of the students in the Department of Physical Education.

The Department of Physical Education Faculty Award

The faculty presents this award to a graduating senior as a vote of confidence in a promising future in the profession. The award is based on scholarship performance, professional attitude toward physical education as a career, and service to the department, university, and community.

Dr. Carl B. Spath Memorial Scholarship These memorial scholarships are presented annually to outstanding juniors enrolled full time in the Department of Physical Education. The candidates are selected by the faculty on the basis of scholastic achievement, character, need, and professional promise in the teaching of physical education.

The William A. Stecher Honor Award An outstanding graduating senior from the Department of Physical Education is recognized annually at the commencement reception with this award. The candidate is selected by the faculty on the basis of scholarship, level of performance in physical activities, professional attitude, character, leadership, and service.

Dr. Rudy Schreiber Scholarship This scholarship recognizes a physical education major and member of Phi Epsilon Kappa for outstanding academic achievement.

Dr. Hitwant Sidhu Scholarship This scholarship honors an undergraduate physical education major with a grade point average (GPA) of 2.5 or higher who participates in voluntary service to the community, the profession, education, or the university.

Jeff and Sue Vessely Scholarship This scholarship is awarded to an incoming freshman physical education major with an outstanding high school academic performance record.

Department of Tourism, Conventions, and Event Management (TCM) Scholarships

American Hotel Foundation Scholarship This scholarship is awarded to a student who has demonstrated potential for leadership in hospitality management, has a minimum 3.0 cumulative GPA, and has financial need.

Raymond A. Dault Care, Pride, and Skill Scholarship In recognition of Raymond Dault's leadership of the TCEM department and his devotion to students, two annual awards are given. One recipient is the freshman student who has earned the highest GPA. The second recipient is the student with the highest GPA on completion of the associate degree.

Bill Day Outstanding Tourism Scholarship and Award The scholarship recognizes a junior for academic achievement, extracurricular participation, and leadership potential. The award recognizes the graduating senior with the highest GPA.

Peter George Scholarship This scholarship is awarded to a student with a 3.2 GPA or higher who demonstrates leadership potential.

Bo L. Hagood Scholarship The scholarship recipient must be an incoming TCEM major with a high school GPA of 2.5.

Per Moller Scholarship This scholarship is awarded to a full-time student who has maintained a GPA of 3.0 or greater and is currently employed in the hospitality industry.

Max M. Shapiro Restaurant Excellence Scholarship This scholarship recognizes an outstanding student and leader. Selection criteria include scholarship, potential for leadership in hospitality management, and commitment to the department and student organizations.

Elias and Fofo Stergiopoulos Scholarship This scholarship award goes to a full-time student in good academic standing who is currently employed in the hospitality industry and is committed to community service.

Department of Physical Education Undergraduate Degree Programs

Bachelor of Science—Physical Education

Each student will select one of the following tracks and will complete each of the classes listed as requirements for that option: (1) Teacher Education; (2) Exercise Science with pre-physical therapy option; (3) Fitness and Sports Studies; (4) Athletic Training.

Teacher Education K-12 Track (135-142 credit hours)

This program will lead to a Teaching Certificate and a Bachelor of Science in Physical Education degree. There are three categories of requirements in this program: (1) physical education; (2) general education; and (3) professional education. The holder of this degree will be eligible to teach physical education at the elementary, junior high/middle school, and high school levels. This curriculum is under revision; contact your academic advisor to obtain the most current listing of requirements.

Physical Education Requirements

UCOL 110 First Year Seminar/Learning Community (1 cr.)
 HPER P110 Dance in Elementary Education (2 cr.)
 HPER P150 Gymnastics I (2 cr.) or HPER P219 Performance and Teaching of Stunts, Tumbling, and Novice Gymnastics (1 cr.)
 HPER H160 First Aid and Emergency Care (3 cr.)
 HPER P195 History and Principles of Physical Education (3 cr.)

HPER P200 Microcomputer Applications in Physical Education (3 cr.) (C or better required)
 HPER P210 Dance in Secondary Education (2 cr.)
 HPER P215 Principles and Practice of Exercise Science (3 cr.)
 HPER N220 Nutrition for Health (3 cr.)
 HPER P271 Individual Sports (1 cr.)
 HPER R275 Dynamics of Camp Leadership (2 cr.)
 HPER P290 Movement Experiences for Preschool and Elementary Children (2 cr.)
 HPER H363 Personal Health (3 cr.)
 HPER P390 Growth and Motor Performance of School-Age Youth K-12 (2 cr.)
 HPER P397 Kinesiology (3 cr.)
 HPER P398 Adapted Physical Education (3 cr.)
 HPER P405 Introduction to Sport Psychology (3 cr.)
 HPER P409 Basic Physiology of Exercise (3 cr.)
 HPER P452 Motor Learning (3 cr.)
 HPER P493 Tests and Measurements in Physical Education (3 cr.)
 HPER P495 Laboratory Teaching in Physical Education Program (1 cr.)
 HPER P497 Organizational and Curricular Structures of Physical Education K-12 (2 cr.)
 HPER: Performance and Teaching (P and T) of Individual/Dual Sports (1-2 cr.)

Select one course: E477-Water Safety (2 cr.), P230-Golf, P235-Aquatics, P236-Tennis, P237-Track and Field, P244-Cardiovascular Fitness (2 cr.)**, P245-Resistance Training (2 cr.)**, PXXX-occasional special topic P and T class

HPER: Performance and Teaching of Team Sports (2-4 cr.)

Select two courses: P229-Flag Football, P233-Softball, P241-Basketball, P242-Soccer, P243-Volleyball, P244-Cardiovascular Fitness (2 cr.)**, P245-Resistance Training (2 cr.)**

HPER: Coaching of Sports (1.5 cr.)

Select two courses: A361-Football, A362-Basketball, A363-Baseball, A364-Track and Field, A367-Swimming and Diving, A368-Tennis, A369-Golf, A370-Soccer, A371-Volleyball, A372-Softball

Total: 59-64 credit hours

General-Education Requirements

A. *Humanities* (18 cr.)

ENG W131 Elementary Composition (3 cr.)

ENG W231 Professional Writing Skills *or*

BUS X204 Business Communications (3 cr.)

COMM R110 Fundamentals of Speech Communication (3 cr.)

Grade of C or better required in W131, W231 or BUS X204, and R110, and none of these three may be taken by correspondence.

Electives Choose 9 credit hours from the following departments. *At least one humanities elective must be from a department other than English or communication.*

Art
 Classical Studies
 Communications
 English

** P244 and P245 may count in *either* Performance and Teaching of Individual/Dual or Team/Sports.

Folklore

Foreign Language

HPER: D101-dance, D332-dance, D441-dance, P402-Ethics in Sports, P411-Legal Aspects and Risk Management in Sports Settings

Journalism

Music

Philosophy

Religion

B. *Life Science and Math* (12-17 cr.)

MATH 110 Algebra (4 cr.) or more advanced mathematics course

BIOL N217 Human Physiology (5 cr.) *or* BIOL N212+N213+N214+N215 Human Biology (8 cr.)

HPER P205 Structural Kinesiology (3 cr.) *or* BIOL N261 Human Anatomy (5 cr.).

C. *Social and Behavioral Sciences* (9 cr. minimum)

PSY B104 Psychology as a Social Science (3 cr.)

ANTH A104 Culture and Society (3 cr.) *OR* similar cross-cultural course approved in advance

Electives Choose 3 credit hours from one of the following departments:

Economics	Geography (non-physical)
History	Organizational
Political Science	Leadership and
Sociology	Supervision (OLS
Women's Studies	252, OLS 274)

Total: 39-44 credit hours

Professional Education Requirements

Students must be admitted to the School of Education teacher education program before being allowed to enroll in these courses. It takes a minimum of two academic years to complete the professional education component. Courses must be taken in sequence, and are offered only in the daytime and in fall and summer semesters. Grade of C required in all classes; grade point average (GPA) average of 2.5 or higher required in professional education block of courses. See School of Education Web site (education.iupui.edu) for further details.

The Professional Education curriculum is under revision; the new curriculum will begin in August 2002. Contact the Department of Physical Education for updates.

Exercise Science Track (124-126 credits)

The exercise science track will lead to a Bachelor of Science in Physical Education degree. It is designed to meet the needs of students who wish to pursue careers in a corporate/community fitness setting, a graduate degree in exercise science, biomechanics, physical therapy, or a career in a related health/wellness field. There are three categories of requirements in this program: (1) physical education; (2) general education; and (3) electives.

Physical Education Requirements

UCOL 110 First Year Seminar/Learning Community (1 cr.)

HPER H160 First Aid and Emergency Care (3 cr.)

HPER P195 History and Principles of Physical Education (3 cr.)

HPER P200 Microcomputer Applications in Physical Education (3 cr.) (C or better required)

HPER P215 Principles and Practice of Exercise Science (3 cr.)

HPER N220 Nutrition for Health (3 cr.)

HPER P271 Individual Sports (1 cr.)

HPER R275 Dynamics of Camp Leadership (2 cr.)

HPER H363 Personal Health (3 cr.)

HPER P373 Progressive Resistance Exercise and Sports Conditioning (3 cr.)

HPER P374 Basic Electrocardiography for the Exercise Sciences (2 cr.)

HPER P397 Kinesiology (3 cr.)

HPER P393 Professional Practice Programs in Physical Education, Health, and Recreation (10 cr.)

HPER P403 Rhythmic Aerobic Training (3 cr.)

HPER P405 Introduction to Sport Psychology (3 cr.)

HPER P409 Basic Physiology of Exercise (3 cr.)

HPER P410 Physical Activity Programming for Individuals with Disabilities and Other Special Populations (3 cr.)

HPER P452 Motor Learning (3 cr.)

HPER P493 Tests and Measurements in Physical Education (3 cr.)

HPER: Performance and Teaching (P and T) of Individual/Dual Sports (2-4 cr.)

Select two courses: E477-Water Safety (2 cr.); P230-Golf; P235-Aquatics; P236-Tennis; P237-Track and Field; P244-Cardiovascular Fitness (2 cr.)**, P245-Resistance Training (2 cr.)**, PXXX-occasional special topic P and T class

HPER: Performance and Teaching of Team Sports (1-2 cr.)

Select one course: P229-Flag Football, P233-Softball, P241-Basketball, P242-Soccer, P243-Volleyball, P244-Cardiovascular Fitness (2 cr.)**, P245-Resistance Training (2 cr.)**

Total: 61-64 credit hours

General Education Requirements

A. *Humanities* (18 cr.)

ENG W131 Elementary Composition (3 cr.)

ENG W231 Professional Writing Skills *or*

BUS X204 Business Communications (3 cr.)

COMM R110 Fundamentals of Speech Communication (3 cr.)

Grade of C or better required in W131, W231 or BUS X204, and R110, and none of these three may be taken by correspondence.

Electives Choose 9 credit hours from the following departments. *At least one humanities elective must be from a department other than English or communication.*

Art
 Classical Studies
 Communications
 English
 Folklore
 Foreign Language

HPER: D101-dance, D332-dance, D441-dance,
P402-Ethics in Sports, P411-Legal Aspects and
Risk Management in Sport Settings
Journalism
Music
Philosophy
Religion

B. Life Science and Math (29-35 cr.)

BIOL N217 Human Physiology (5 cr.) *or* BIOL
N212+N213+N214+N215 Human Biology (8 cr.)

HPER P205 Structural Kinesiology (3 cr.) *or* BIOL
N261 Human Anatomy (5 cr.).

NOTE that athletic training students must take
BIOL N261 to meet the anatomy requirement.

MATH 153 Algebra and Trigonometry I (3 cr.)

MATH 154 Algebra and Trigonometry II (3 cr.)

CHEM C101 Elementary Chemistry I (5 cr.)

PHYS P201 General Physics I (5 cr.) *or*

PHYS 218 General Physics I (4 cr.)

CPT 120 Quantitative Analysis I (3 cr.) *or*

CPT 223 Web Page Design (3 cr.) *or* CSCI N201

Programming Concepts (3 cr.) *or*

CSCI N207 Data Analysis Using Spreadsheets
(3 cr.)

STAT 301 Statistics *or* PSY B305 Statistics (3 cr.)

C. Social and Behavioral Sciences (9 cr.
minimum)

PSY B104 Psychology as a Social Science (3 cr.)

Electives Choose a class (3 cr.) from two different
departments in this list:

Anthropology
Economics
Geography (non-physical)
History
Organizational Leadership and Supervision
(OLS 252, OLS 274)
Political Science
Sociology
Women's Studies

Total: 56-62 credit hours

D. Electives

Additional elective credits may be required to reach
124 credit hour minimum required for the degree.

**Exercise Science/Pre-Physical
Therapy Track (132-137 credits)**

Students will earn a Bachelor of Science in Physical
Education with an Exercise Science emphasis, and will
complete the additional courses and experiences
required to apply for graduate-level physical therapy
degree programs. Graduate level physical therapy
programs require completion of any undergraduate
major; completion of specific pre-physical therapy
prerequisite courses (primarily math, science) and
experiences (documented volunteer or paid activity in
physical therapy-related settings under supervision of
an approved physical therapist); and high grade point
average (GPA) (minimum 3.0 overall; minimum 3.0
in math/science courses). For further information
about the IUPUI physical therapy degree program
(Doctor of Physical Therapy), contact the School of
Allied Health at (317) 274-1031 or (317) 278-1875,
www.sahs.iupui.edu/pt.

- Students will complete all courses listed above in
the Exercise Science Track curriculum (minimum
of 124 cr.). Students may utilize physical
therapy-related sites to fulfill the exercise science
HPER P393-Internship (10 cr.) requirement.
- Additional coursework beyond the Exercise
Science curriculum to meet physical therapy
admission requirements (using IUPUI course
titles/numbers) (12-13 cr.):
 - CHEM C106 Chemistry II (3 cr.) and CHEM
C126 Experimental Chemistry (2 cr.)
 - PHYS P202 General Physics II (5 cr.) *or* PHYS
219 General Physics (4 cr.)
 - PSY B310 Lifespan/Human Development
(3 cr.)
 - Documented voluntary or paid experience in a
variety of physical therapy settings (more than
three settings; supervisors must submit a
reference form in advance)
- Additional recommended courses:
 - GLAS C209 Medical Terminology (2 cr.) *or*
AHLT W105 Medical Terms (1 cr.)
 - PSY B380 Abnormal Psychology (3 cr.)

Fitness and Sports Studies Track

This track will lead to a Bachelor of Science in
Physical Education degree. It is directed to those who
may hold positions in personal fitness training,
recreational fitness, and related areas.

Physical Education Requirements

UCOL 110 First Year Seminar/Learning Community
(1 cr.)

HPER P150 Gymnastics (2 cr.) *or* HPER P219
Performance and Teaching of Stunts, Tumbling,
and Novice Gymnastics (1 cr.)

HPER H160 First Aid and Emergency Care (3 cr.)

HPER P195 History and Principles of Physical
Education (3 cr.)

HPER P200 Microcomputer Applications in Physical
Education (3 cr.) (C or better required)

HPER P215 Principles and Practice of Exercise
Science (3 cr.)

HPER N220 Nutrition for Health (3 cr.)

HPER P271 Individual Sports (1 cr.)

HPER R275 Dynamics of Camp Leadership (2 cr.)

HPER P290 Movement Experiences for Preschool and
Elementary Children (2 cr.)

HPER H363 Personal Health (3 cr.)

HPER P373 Progressive Resistance Exercise and
Sports Conditioning (3 cr.)

HPER P397 Kinesiology (3 cr.)

HPER P393 Professional Practice Programs in
Physical Education, Health, and Recreation
(10 cr.)

HPER P403 Rhythmic Aerobic Training (3 cr.)

HPER P405 Introduction to Sport Psychology (3 cr.)

HPER P409 Basic Physiology of Exercise (3 cr.)

HPER P410 Physical Activity Programming for
Individuals with Disabilities and Other Special
Populations (3 cr.)

HPER P405 Introduction to Sport Psychology (3 cr.)

HPER P409 Basic Physiology of Exercise (3 cr.)

HPER P452 Motor Learning (3 cr.)

HPER P493 Tests and Measurements in Physical
Education (3 cr.)

HPER: Performance and Teaching (P and T) of
Individual/Dual Sports (1-2 cr.)

Select one course: E477-Water Safety (2 cr.),
P230-Golf, P235-Aquatics, P236-Tennis, P237-
Track and Field; P244-Cardiovascular Fitness
(2 cr.)**, P245-Resistance Training (2 cr.)**,
PXXX-occasional special topic P and T class

HPER: Performance and Teaching of Team Sports
(4-6 cr.)

Select four courses: P229-Flag Football, P233-
Softball, P241-Basketball, P242-Soccer, P243-
Volleyball, P244-Cardiovascular Fitness (2
cr.)**, P245-Resistance Training (2 cr.)**

Total: 70-73 credit hours

General Education Requirements

A. Humanities (18 cr.)

ENG W131 Elementary Composition (3 cr.)

ENG W231 Professional Writing Skills *or* BUS X204
Business Communications (3 cr.)

COMM R110 Fundamentals of Speech Communication
(3 cr.)

*Grade of C or better required in W131, W231, and
R110, and none of these three may be taken by
correspondence.*

Electives Choose 9 credit hours from the following
departments. *At least one humanities elective must
be from a department other than English or
communication.*

Art
Classical Studies
Communications
English
Folklore
Foreign Language
HPER: D101-dance, D332-dance, D441-dance,
P402-Ethics in Sports, P411-Legal Aspects and
Risk Management in Sports Settings
Journalism
Music
Philosophy
Religion

B. Life Science and Math (12-17 cr.)

MATH 110 Algebra (4 cr.) *or* more advanced
mathematics course

BIOL N217 Human Physiology (5 cr.) *or* BIOL
N212+N213+N214+N215 Human Biology (8 cr.)

HPER P205 Structural Kinesiology (3 cr.) *or*
BIOL N261 Human Anatomy (5 cr.)

C. Social and Behavioral Sciences
(9 cr. minimum)

PSY B104 Psychology as a Social Science (3 cr.)

ANTH A104 Culture and Society (3 cr.) *OR* similar
cross-cultural course approved in advance

Electives Choose 3 credit hours from one of the
following departments:

Economics	Geography (non-physical)
History	Organizational
Political Science	Leadership and
Sociology	Supervision (OLS
Women's Studies	252, OLS 274)

Total: 39-44 credit hours

** P244 and P245 may count in *either* Performance and Teaching of
Individual/Dual or Team Sports

Health Education Track (cr. pending)

Students pursuing this track may earn certification to teach health education in elementary and secondary schools. The health education curriculum, formerly a health and safety minor at IUPUI, is undergoing revision in response to certification changes by the Indiana Professional Standards Board. Contact the Department of Physical Education for details, 274-2248.

Athletic Training Track (131-133 cr.)

This track is designed to prepare students for careers in athletic training in school, clinic, and team settings. Prospective students must meet prerequisites before applying for admission to the athletic training track. The academic curriculum and clinical experiences, based on the *National Athletic Trainers Association Athletic Training Educational Competencies*, prepare students to take the certification exam of the National Athletic Trainers Association Board of Certification.

Application Process for the Athletic Training Program

Admission to the program is limited to approximately 8-10 new students per year. Applications are due on the last Friday of the spring semester. The Athletic Training Admission Committee will evaluate candidates based on the written application, scholastic performance, career goals, and previous athletic training experience. The committee will hold interviews in May, and notify candidates of admission status in June.

Application Criteria

- Six prerequisite courses, with GPA of 2.70 or above
 HPER H160 First Aid and Emergency Care (3 cr.)
 HPER P215 Principles and Practices of Exercise Science (3 cr.)
 HPER H363 Personal Health (3 cr.)
 HPER P205 Structural Kinesiology (3 cr.) (C or above required)
 HPER P280 Principles of Athletic Training and Emergency Care (2 cr.)
 CLAS C209 Medical Terms for Greek and Latin (2 cr.) or AHLT W105 Medical Terms for the Health Sciences (1 cr.)
- Cumulative GPA of 2.50 or above
- Current transcript
- Completion of athletic training application form
- Interview with athletic training admissions committee
- Transfer students who completed prerequisites at a previous school must submit three letters of recommendation, with one of those from the Athletic Training Program Director or Head Athletic Trainer at the previous school

Physical Education Requirements (49 cr.)

UCOL 110 First Year Seminar/Learning Community (1 cr.)
 HPER H160 First Aid and Emergency Care (3 cr.)
 HPER H363 Personal Health (3 cr.)
 HPER N220 Nutrition for Health (3 cr.)

HPER P195 History and Principles of Physical Education (3 cr.)
 HPER P220 Microcomputer Applications in Physical Education (3 cr.)
 HPER P215 Principles and Practices of Exercise Science (3 cr.)
 HPER P271 Individual Sports (1 cr.)
 HPER P244 Performance and Teaching of Cardiovascular Fitness (2 cr.)
 HPER P245 Performance and Teaching of Resistance Training (2 cr.)
 HPER P373 Progressive Resistance Exercise and Sports Conditioning (3 cr.)
 HPER P374 Basic Electrocardiography for Exercise Science (2 cr.)
 HPER P397 Kinesiology (3 cr.)
 HPER P405 Introduction to Sports Psychology (3 cr.)
 HPER P409 Basic Physiology of Exercise (3 cr.)
 HPER P410 Physical Activity Programming for Individuals with Disabilities and Other Special Populations (3 cr.)
 HPER P411 Legal and Risk Management Issues in Sports Settings (3 cr.)
 HPER P493 Tests and Measurements in Physical Education (3 cr.)
 HPER R275 Dynamics of Camp Leadership (2 cr.)

Athletic Training Courses (26 cr.)

HPER P280 Principles of Athletic Training and Emergency Care (2 cr.)
 HPER A281 Recognition and Evaluation of Athletic Injuries (3 cr.)
 HPER A282 Strapping and Bandaging Techniques in Athletic Training (2 cr.)
 HPER A381 Laboratory Practice in Athletic Training I (2 cr.)
 HPER A382 Laboratory Practice in Athletic Training II (2 cr.)
 HPER A383 Therapeutic Modalities in Athletic Training (3 cr.)
 HPER A384 Therapeutic Exercise in Athletic Training (3 cr.)
 HPER A386 Emergency Management of Athletic Injuries/Illnesses (3 cr.)
 HPER P393 Professional Practice Programs in Physical Education, Health, and Recreation (6 cr.)

General Education Requirements

A. Humanities (13-14 cr.)

Required Humanities

ENG W131 Elementary Composition (3 cr.)
 ENG W231 Professional Writing Skills (3 cr.) **or**
 BUS X204 Business Communications (3 cr.)
 COMM R110 Fundamentals of Speech Communication (3 cr.) **or**
 COMM C180 Fundamentals of Interpersonal Speech Communication (3 cr.)
 CLAS 209 Medical Terms from Greek and Latin (2 cr.) **or**
 AHLT W105 Medical Terms for the Health Sciences (1 cr.)
 HPER P402 Ethics in Sports (3 cr.)

Grade of C or better required in W131, W231 or X204, and R110 or C180, and none of these courses may be taken by correspondence.

B. Life Science and Math (32-33 cr.)
 HPER P205 Structural Kinesiology (3 cr.)
 BIOL N217 Human Physiology (5 cr.)
 BIOL N261 Human Anatomy (5 cr.)
 MATH 153 Algebra and Trigonometry I (3 cr.)
 MATH 154 Algebra and Trigonometry II (3 cr.)
 CHEM C105 Principles of Chemistry I (3 cr.)
 CHEM C125 Principles of Chemistry I Lab (2 cr.)
 PHYS P201 General Physics (5 cr.) **or**
 PHYS P218 General Physics (4 cr.)
 STAT 301 Elementary Statistical Methods I (3 cr.) **or**
 PSY B305 Statistics (3 cr.)

C. Social and Behavioral Sciences (6 cr.)

PSY B104 Psychology as a Social Science (3 cr.) **or**
 PSY B105 Psychology as a Biological Science (3 cr.)
 ANTH A104 Culture and Society (3 cr.)

D. Emergency Medicine (6 cr.)

AHLT E201 Emergency Medical Technician I (3 cr.)
 AHLT E202 Emergency Medical Technician II (3 cr.)

Other Programs Offered in Physical Education and Related Areas

Adapted Physical Education Minor (27 cr.)

The adapted physical education minor will prepare the physical educator to design and develop programs for special populations in school and community settings.

Adapted Physical Education (12 cr.)

HPER P398 Adapted Physical Education (3 cr.)
 HPER P410 Physical Activity Programming for Individuals with Disabilities and Other Special Populations (3 cr.)
 HPER P490 Motor Development of Preschool-Elementary School Children (3 cr.)
 HPER P475 Motor Assessment and Service Delivery for Children, Youth, and Adults with Disabilities (P: P490) (3 cr.)

NOTE: Students are to take these 12 credit hours in order as listed.

Adapted Physical Education Practicum (3 cr.)

HPER P399 Adapted Physical Education Practicum (P: P398) (1 or 2 cr.)
 (Repeated for a total of 3 credit hours.)

Special Education (6 cr.)

EDUC K205 Introduction to Exceptional Children (3 cr.) *and*
 EDUC K453 Management of Academic and Social Behavior (3 cr.) *or*
 EDUC K465 Service Delivery Systems and Consultation Strategies (3 cr.)

Directed Electives (6 cr.)

Select courses for a total of 6 credits:

- EDUC K461 Curriculum and Methods for Students with Severe Disabilities (3 cr.)
 EDUC P254 Educational Psychology for All Teachers (3 cr.)
 HPER P373 Progressive Resistance Exercise and Sports Conditioning (3 cr.)
 HPER P421 Special Topics: Adapted Aquatics Instructor (1 cr.)
 SPHS S211 American Sign Language I (4 cr.)
 SPHS S212 American Sign Language II (4 cr.)
 EDUC K465 Service Delivery Systems and Consultation Strategies (3 cr.)
 EDUC K453 Management of Academic and Social Behavior (3 cr.)
 HPER P399 (P: P398) Adapted Physical Education Practicum (1-2 cr.)

Dance Minor (22-27 cr.)

The dance minor provides students with experience in dance performance, choreography and production, movement theory and the related arts, and teaching.

Required Courses:

- HPER P205 Structural Kinesiology (3 cr.) *or*
 BIOL N261 Human Anatomy (5 cr.)
 HPER D201 Modern Dance Workshop I (1 cr.)
 HPER D201 Modern Dance Workshop II (1 cr.)
 HPER D221 Dance Composition I (2 cr.)
 HPER D332 Dance and the Allied Arts II (3 cr.)
 HPER D441 Dance Production I (2 cr.)

Choose one group of three courses: either

- HPER D202 Intermediate Ballet (1 cr.)

and

- HPER D218 Modern Jazz Dance Technique (1 cr.)

and

- HPER E255 Modern Dance—Intermediate (1 cr.)

or

- PER D211 Advanced Technique I (2 cr.) *and*

- HPER D212 Advanced Technique II (2 cr.) *and*

- HPER E355 Modern Dance I—Advanced (1 cr.)

Choose one: HPER D351 Teaching of Modern Dance (1 cr.) *or*

- HPER P110 Dance in Elementary Education (2 cr.) *or*

- HPER P210 Dance in Secondary Education (2 cr.) *or*

- HPER P495 Laboratory Teaching in Physical Education Program (1 cr.)

A minimum of 6 elective credit hours are required in addition to the above courses.

Coaching Endorsement (19-22 cr.)

A coaching endorsement may be earned in conjunction with a physical education teaching major or with another major in education. An “endorsement” is an item that may be added to a teaching license in Indiana and signifies that the person has completed a set of course work. Many states (though currently not Indiana) require coaches to hold a coaching endorsement to qualify for coaching assignments. NOTE that the Indiana Professional Standards Board is revising criteria for teacher licensure in Indiana, and specifications for coaching are subject to change. Direct inquiries to the IUPUI Department of Physical Education, 274-2284.

- BIOL N217 Human Physiology (5 cr.) *or* BIOL N212+N213+N214+N215 Human Biology (8 cr.)
 HPER P280 Principles of Athletic Training and Emergency Care (2 cr.)
 HPER P397 Kinesiology (3 cr.)
 HPER P405 Introduction to Sport Psychology (3 cr.)
 HPER coaching electives (theory and technique) (6 cr.)

Driver Education Endorsement (12 cr.)

The driver education endorsement prepares students to teach driver education in secondary schools and in commercial driving schools. The term “endorsement” originally referred to a subject area that could be added to an Indiana teaching license. This set of courses retains the title “endorsement”; however, students in any degree program and non-degree students are eligible to pursue this program. To teach driver education in programs not affiliated with a high school, individuals must take the courses listed below (12 credits), have earned at least 60 college credits (which may include the 12 credit hours listed below), and do not need to hold a teaching license. Specific requirements leading to this endorsement are listed below. Offered in summer only.

- HPER S360 Highway Safety Administration (3 cr.)
 HPER S441 Readings in Safety Education (2 cr.)
 HPER S456 Traffic Safety Education for Teachers (4 cr.)
 HPER S458 Driver Education Multiple Instruction Techniques (3 cr.)

Aquatic Concentration (12.5 cr.)

An aquatic concentration may be earned in conjunction with a major in physical education.

Required Courses

Students must complete all of the following (9.5 cr.):

- HPER A367 Coaching of Swimming and Diving (1.5 cr.)
 HPER E475 Lifeguard Certification (1 cr.)*
 HPER E477 Water Safety Instructor (2 cr.)*
 HPER P421 Special Topics: Adapted Aquatics Instructor (1 cr.)
 HPER P235 Performance and Teaching of Aquatic Activities (1 cr.)
 HPER P327 Administration, Maintenance, and Construction of Aquatic Facilities (3 cr.)

Electives

Select three courses: (3 cr.)

- HPER E123 Diving (1 cr.)
 HPER E270 Scuba (1 cr.)
 HPER E271 Swimming—Synchronized (1 cr.)
 HPER E275 Aquatic Conditioning (1 cr.)
 HPER E371 Advanced Scuba (1 cr.)
 HPER R470 Professional Field Experience in Recreation (1-3 cr.)
 HPER P499 Research in Physical Education and Athletics (1-3 cr.)

Business Minor (39 cr.)

Students enrolled in the School of Physical Education may combine the major in physical education with a business minor. Students must complete all pre-business courses listed below before taking the integrative business core. A minimum 2.5 grade point

*Students who possess these two certifications must hold current certification at the time they complete the aquatic concentration.

average (GPA) is required in the 27 credit hours of pre-business requirements before a student can proceed to the integrative core.

Prebusiness Requirements (27 cr.)

- BUS A201-A202 Introduction to Accounting I-II (3 cr. each)
 CSCI 208 The Computer in Business (3 cr.)
 ECON E201 Introduction to Microeconomics (3 cr.)
 ECON E202 Introduction to Macroeconomics (3 cr.)
 ECON E270 Introduction to Statistical Theory in Economics and Business (3 cr.)
 MATH M118 Finite Mathematics (3 cr.)
 MATH M119 Brief Survey of Calculus I (3 cr.)
 PSY B104 Psychology as a Social Science (3 cr.)

Business Integrative Core Requirements (12 cr.)

- BUS F301 Financial Management (3 cr.)
 BUS M301 Introduction to Marketing Management (3 cr.)
 BUS P301 Operations Management (3 cr.)
 (*Note:* BUS F301, M301, and P301 are an integrated 9 credit hour package and must be taken in the same semester.)
 J401 Administrative Policy (3 cr.)

Recommended:

- BUS L201 Legal Environment of Business (3 cr.)
 BUS Z302 Managing and Behavior in Organizations (3 cr.)

Certificate in Personal Training (19-21 cr.)

This certificate provides individuals with a basic understanding of the principles of personal training and prepares them for two national certification exams: the Exercise Leader certificate of the American College of Sports Medicine and Certified Personal Trainer from the National Strength and Conditioning Association. All courses in the certificate curriculum apply to the Exercise Science degree. Currently there are no state or national licensing requirements for personal trainers.

- HPER H160 First Aid and Emergency Care (3 cr.)
 HPER P205 Structural Kinesiology (3 cr.) *or* BIOL N261 Human Anatomy (5 cr.)
 HPER P215 Principles and Practices of Exercise Science (3 cr.)
 HPER N231 Human Nutrition *or* FN 303 Essentials of Nutrition (3 cr.)
 HPER P244 Performance and Teaching of Cardiovascular Fitness (2 cr.)
 HPER P245 Performance and Teaching of Resistance Training (2 cr.)
 HPER P373 Progressive Resistance Exercise and Sports Conditioning (3 cr.)

Maintaining a Teaching License

The Indiana Department of Education (IDOE) requires licensed teachers to take courses on an ongoing basis to maintain a valid teaching license, as follows:

Six credit hours every five years; undergraduate or graduate courses in education or license area(s). Submit documentation to IDOE.

Note: New licensing and renewal procedures will go into effect in approximately 2002. For information, contact the IUPUI School of Education, (317) 274-0643.

Interested teachers may contact the IUPUI School of Education, Certification Program, for information and enrollment: 902 W. New York Street, Indianapolis, IN, 46202-5155; (317) 274-0643.

Earning Certification to Teach

Individuals who have earned college degrees but who do not hold teaching credentials may pursue those credentials through a process called certification. The process involves a review of past course work, designation of required courses, application to the certification program, and successful completion of required courses. Two routes are available to degreed students interested in earning certification, and the course work is exactly the same in each route: (1) Pursue a second undergraduate degree—a B.S. in Physical Education; (2) pursue the “certification only” program through the School of Education. There are fees associated with evaluation of past course work and for application to the certification program. For further information, contact the physical education department regarding pursuit of a second bachelor's degree (317) 274-2248, or the Certification Program, IUPUI School of Education, 902 W. New York Street, Indianapolis, IN, 46202-5155; (317) 274-0643.

Department of Physical Education Graduate Degree Program

Master of Science—Physical Education

The Indiana University School of Physical Education at Indiana University—Purdue University Indianapolis is authorized to offer an Indiana University Master of Science degree in Physical Education. This degree will provide students with a multidisciplinary and in-depth understanding of physical education and its related fields. The objectives of the program are to (1) create course work and experiences that promote higher learning, (2) develop community- and university-based partnerships that facilitate research and learning opportunities, and (3) provide personal growth and professional development to teachers and others in the field.

Application for Admission

An application for admission may be obtained by writing to Recorder, School of Physical Education, 910 West New York Street, Indianapolis, IN 46202 or by calling (317) 274-2599.

Admission Requirements

Students entering the graduate program must have a bachelor's degree in physical education, exercise science, sports management or a related area; have completed undergraduate work with a minimum 2.8 grade point average (GPA) on a 4.0 scale; and have appropriate scores on the Graduate Record Examination (GRE). Students who have a bachelor's

degree in an unrelated area or discipline may be granted admission upon the completion of a series of undergraduate courses to be determined by the admission committee. Minimal requirements include the completion of BIOL N217 Human Physiology (5 cr.); BIOL N261 Human Anatomy (5 cr.); HPER P215 Principles and Practice of Exercise Science (3 cr.); HPER P397 Kinesiology (3 cr.); and HPER P409 Basic Physiology of Exercise (3 cr.).

Admission Process

The applicant must submit the following materials to the School of Physical Education to be considered for admission to the Master of Science Program:

1. A three-page School of Physical Education application form.
2. A Graduate and Professional Application Data sheet from the IUPUI Graduate School.
3. A 200-300 word candidate statement indicating areas of interest and professional goals.
4. Three reference letters from individuals who have sufficient knowledge of the applicant's ability to be successful in graduate work.
5. One official transcript for all previous college and university work including degrees awarded. If the applicant has completed course work from any campus of Indiana University, transcripts from that work is not required.
6. Scores from the Graduate Record Examination (GRE).
7. A non-refundable application fee of \$35.00.
8. For International students, proof of proficiency in English, as defined by a 550 or above for the paper-based TOEFL and a minimum of 213 for the computer-based TOEFL.
9. Send all materials to Recorder, School of Physical Education, 901 W. New York Street, Indianapolis, IN, 46202. All materials submitted for the application process become the property of the university and will not be returned. Applications will not be considered until all materials have been submitted.

Admission Status

An applicant for admission into the graduate program in the School of Physical Education will be classified in one of the following admission categories:

1. **Unconditional** Applicants in this category have met all of the requirements for admission into the program and may begin course work immediately.
2. **Conditional** The applicant is admitted provisionally, pending the completion of certain course prerequisites.
3. **Denied** The applicant is denied regular admission into the program and may not pursue the degree at this time. Reconsideration of the application can be requested if new evidence is presented to the admission committee. If that new evidence includes graduate course work taken at Indiana University or another accredited institution, that course work will not usually be accepted toward the degree if the student is subsequently accepted.
4. **Non-degree** Students who hold a bachelor's degree who wish to pursue advanced study may do so as an adult non-degree student in the School of Physical Education. These students will need to complete an abbreviated application for

admission. Non-degree students must obtain permission each semester to enroll in classes. If a non-degree student later applies for unconditional admission in order to complete a degree, no more than 9 credit hours taken before formal admission may be applied toward the degree.

Academic Regulations

Degree requirements for students in the School of Physical Education are established by the faculty of the school and may change from time to time. Students are bound by rules and regulations established by the faculty at the time of their initial matriculation as a graduate student. Every graduate student will be assigned an advisor who will help cooperatively plan their course of study depending on experiences and education objectives. The Master of Science degree consists of a 15-hour core of major topics in physical education and human performance and an additional 20 hours of elective courses, a minimum of 9 of which must be completed in the School of Physical Education.

Core Courses (15 cr.)

HPER T590 Introduction to Research in HPER (3 cr.)
 HPER K525 Psychological Foundations of Exercise and Sports (3 cr.)
 HPER K530 Mechanical Analysis of Human Performance (3 cr.)
 HPER K535 Physiological Basis of Human Performance (3 cr.)
 HPER K522 Adapted Physical Education (3 cr.)

Grades

Quality points are assigned for purposes of determining the cumulative grade point average as follows: A+ or A=4 credit points; A-=3.7; B+=3.3; B=3.0; B-=2.7; C+=2.3; C=2.0; C-=1.7; D+=1.3; D=1.0; D-=0.7; F=0. No points are assigned for grades of Incomplete (I), Satisfactory (S), Pass (P), or Withdrawn (W).

All graduate students are expected to maintain an overall grade point average of 3.0 or better. Students whose average falls below this level will be placed on probation. Grades below C- will not count toward degree requirements; however, all grades earned in courses taken for graduate credit will be included in the calculation of the grade point average.

Transfer of Credit

A maximum of nine credit hours of graduate work may be transferred from other institutions for application to the master's degree. The admission committee will determine the distribution and acceptance of those transfer hours at the time of admission. Once a student has enrolled in the Master of Science degree program in the School of Physical Education they must receive advance approval from the advisor and Department Chair to take work at another institution for transfer to IUPUI. This limitation does not apply to work taken at any other Indiana University campus.

Transfer credit bearing grades of Pass (P) or Satisfactory (S) cannot be accepted unless there is official documentation for the transferring institution to verify that these grades are equivalent to at least a B on a graduate grading scale. No credit can be transferred for a course that cannot be officially documented as carrying graduate credit.

Graduation

At least six months prior to the date of expected graduation from the Master of Science program, the student should file an application for graduation with the School of Physical Education Recorder, Room 258, Physical Education/Natatorium Building. Students are ultimately responsible for knowing, understanding and completing all degree requirements in a timely manner. IUPUI holds a single commencement ceremony in May each year. In order to participate in commencement activities the student must have completed all degree requirements by the prior December or expect to complete them no later than August following the May commencement exercises.

Department of Tourism, Conventions, and Event Management (TCEM, formerly RHIT) Degree Programs

Bachelor of Science in Tourism, Conventions, and Event Management—124 credit hours (IU Degree)

This program will lead to a Bachelor of Science degree. Graduates may be employed in different segments of the tourism industry: research, destination development, adventure travel, festivals, events, travel management, entertainment, attractions, transportation, accommodations, and/or food operations. All courses in the major must be completed with a C or higher.

General Education Requirements (39 credit hours)

BUS X204 Business Communications (3 cr.)
 COMM R110 Fundamentals of Speech Communication (3 cr.)
 ECON E201 Economics (3 cr.)
 ENG W131 Elementary Composition I (3 cr.)
 GEOG G110 Introduction to Human Geography (3 cr.)
 GEOG elective (300 level) (3 cr.)
 HPER R423 Visitor Behavior (3 cr.)
 PSY Elective (300 level) (3 cr.)
 PSY B104 Psychology as a Social Science (3 cr.)
 STAT 301 Elementary Statistics Methods I (3 cr.)
 STAT 302 Elementary Statistics Methods II (3 cr.)
 Foreign Language (3 cr.)
 Foreign Language (3 cr.)

Major Requirements (73 credit hours)

TCEM 100 Introduction to Tourism and Hospitality Management (3 cr.)
 TCEM 110 College Life Orientation (1 cr.)
 TCEM 115 Computers in the Tourism and Hospitality Industry (3 cr.)
 TCEM 119 Travel Career Development (3 cr.)
 TCEM 141 Financial Accounting for the Service Industries (3 cr.)
 TCEM 171 Introduction to Convention/Meeting Management (3 cr.)
 TCEM 172 The Development and Management of Attractions (3 cr.)
 TCEM 181 Front Office Operations (3 cr.)
 TCEM 212 Tourism and Hospitality Management Principles (3 cr.)
 TCEM 231 Tourism and Hospitality Marketing (3 cr.)
 TCEM 241 Financial Analysis and Decision Making in Tourism and Hospitality Operations (3 cr.)
 TCEM 271 Mechanics of Meeting Planning (3 cr.)
 TCEM 272 The Tourism System (3 cr.)
 TCEM 310 Special Event Management (2 cr.)
 TCEM L310 Special Event Management Laboratory (1 cr.)
 TCEM 312 Human Resource Management for the Service Industries (3 cr.)
 TCEM 319 Management of Sports Events (3 cr.)
 TCEM 352 Promotional Communications (3 cr.)
 TCEM 362 Economics of Tourism (3 cr.)
 TCEM 372 Global Tourism Geography (3 cr.)
 TCEM 387 Tourism Internship (2 cr.)
 TCEM 391 Event Catering Management (2 cr.)
 TCEM L391 Event Catering Management Laboratory (1 cr.)
 TCEM 392 Destination Development (1 cr.)
 TCEM 411 Hospitality Law (3 cr.)
 TCEM 461 Tourism Research and Planning Development (3 cr.)
 TCEM 472 Global Tourism (3 cr.)
 TCEM 499 Operational Analysis (3 cr.)

Electives (12 credit hours)*

6 credit hours must be 100 or 200 level.

6 credit hours must be 300 level or higher.

Total: 124 credit hours

Food Service and Lodging Supervision (Purdue degree) 60 credit hours

This program will lead to an Associate of Science degree. Graduates are prepared for employment in hospitality management positions in quick service, fine dining, cafeterias, hotels, resorts, condominiums and bed and breakfasts. All courses in the major must be completed with a grade of C or higher.

TCEM 100 Introduction to Tourism and Hospitality Management (3 cr.)
 TCEM 110 College Life Orientation (1 cr.)
 TCEM 115 Computers in the Tourism and Hospitality Industry (3 cr.)
 TCEM 141 Financial Accounting for the Service Industries (3 cr.)
 TCEM 181 Front Office Operations (3 cr.)

TCEM 191 Sanitation and Health in Food Service, Lodging, and Tourism (3 cr.)
 TCEM 212 Tourism and Hospitality Management Principles (3 cr.)
 TCEM 231 Hospitality and Tourism Marketing (3 cr.)
 TCEM 241 Financial Analysis and Decision Making (3 cr.)
 TCEM 352 Promotional Communication (3 cr.)
 TCEM 281 Hotel Operations (3 cr.)
 TCEM 391 Event Catering Management (1 cr.)
 TCEM L391 Event Catering Management Laboratory (2 cr.)
 TCEM 312 Human Resource Management for the Service Industries (3 cr.)
 TCEM 387 Tourism Internship (2 cr.)

General Education Requirements

COMM R110 Fundamentals of Speech Communication (3 cr.)
 ENG W131 Elementary Composition I (3 cr.)
 BUS X204 Business Communication (3 cr.)
 MATH 153 Algebra and Trigonometry (3 cr.),
or
 MATH 119 Brief Survey of Calculus (3 cr.)
or
 STAT 301 Elementary Statistical Methods (3 cr.)
 PSY B104 Psychology as a Social Science (3 cr.)
 Foreign Language (3 cr.)

Electives: Select 3 credit hours of electives.

Total: 60 credit hours

Cultural Heritage Tourism Certificate

Completion of the courses identified below with a grade of C or better within a five-year period will qualify an IUPUI degree-seeking student or graduate nondegree student to be awarded a Cultural Heritage Tourism Certificate.

TCEM 172 The Development and Management of Attractions (3 cr.)
 TCEM 231 Marketing Tourism and Hospitality (3 cr.)
 TCEM 272 The Tourism System (3 cr.)
 TCEM 334 Cultural Heritage Tourism (3 cr.)
 TCEM 372 Global Tourism Geography (3 cr.)
 TCEM 387 Tourism Internship (1 cr.)
 ANTH A104 Culture and Society (3 cr.)

19 credit hours

Food Production Management Certificate

Completion of the courses identified below with a grade of C or better within a five-year period will qualify an IUPUI degree-seeking student or a graduate nondegree student to be awarded a Food Production Management Certificate.

TCEM 115 Computers in the Tourism and Hospitality Industry (3 cr.)
 TCEM 191 Sanitation and Health in Food Service, Lodging, and Tourism (3 cr.)
 TCEM 212 Tourism and Hospitality Management Principles (3 cr.)
 TCEM 311 Procurement Management (3 cr.)
 TCEM 322 Hospitality Facilities Management (3 cr.)
 TCEM 391 Event Catering Management (2 cr.)
 TCEM L391 Event Catering Management Laboratory (1 cr.)

18 credit hours

Lodging Management Certificate

Completion of the courses identified below with a grade of C or better within a five-year period will qualify an IUPUI degree-seeking student or a graduate nondegree student to be awarded a Lodging Management Certificate.

TCEM 181 Front Office Operations (3 cr.)
TCEM 212 Tourism and Hospitality Management Principles (3 cr.)
TCEM 281 Hotel Management (3 cr.)
TCEM 311 Procurement Management (3 cr.)
TCEM 322 Hospitality Facilities Management (3 cr.)
TCEM 385 Beer and Spirit Management (3 cr.)
TCEM 387 Tourism Internship (1 cr.)

19 credit hours

Beverage Management Certificate

Completion of the courses identified below with a grade of C or better within a five-year period will qualify an IUPUI degree-seeking student or a graduate nondegree student to be awarded a Beverage Management Certificate.

TCEM 218 Wines of the World (3 cr.)
TCEM 231 Marketing Tourism and Hospitality (3 cr.)
TCEM 308 Wine Selection (3 cr.)
TCEM 311 Procurement Management (3 cr.)
TCEM 385 Beer and Spirits Management (3 cr.)

15 credit hours

Events Management Certificate

Completion of the courses identified below with a grade of C or better within a five-year period will qualify an IUPUI degree-seeking student or graduate nondegree student to be awarded an Events Management Certificate.

TCEM 171 Introduction to Convention/Meeting Management (3 cr.)
TCEM 271 Mechanics of Meeting Planning (3 cr.)
TCEM 310 Special Event Management (2 cr.)
TCEM L310 Special Event Management Laboratory (1 cr.)
TCEM 319 Management of Sports Events (3 cr.)
TCEM 352 Promotional Communications (3 cr.)
TCEM 377 Exhibit Marketing (3 cr.)
TCEM 387 Tourism Internship (1 cr.)

19 credit hours

To record progress of students toward completion of any of the certificates, an application must be filed with the school records upon enrollment in the first course, and updated with enrollment in each of the other five courses.

***Note: TCEM classes may not be used for free electives.**

Consumer and Family Science Transfer Program

Requirements for a Bachelor of Science degree in child development and family studies; foods and nutrition; consumer sciences and retailing; hospitality and tourism management; or family and consumer sciences education can be started at IUPUI. Students must transfer to the School of Consumer and Family Sciences at Purdue University in West Lafayette. See a TCEM academic advisor for more information on transfer completion.

Department of Physical Education (HPER) Courses

The courses below represent the total offerings of the School of Physical Education. Not all courses are offered every semester. The number of credit hours given for a course is indicated in parentheses following the course title. The abbreviation P refers to prerequisites.

Professional Preparation Program in Physical Education

A281 Recognition and Evaluation of Athletic Injuries (3 cr.) P: HPER H160, HPER P280. A course designed to educate the student athletic trainer in principles and procedures of soft-tissue evaluation of all major anatomic sites. Skill development in special tests for assessing musculoskeletal trauma is included.

A282 Strapping and Bandaging Techniques in Athletic Training (3 cr.) P: Admission to the Athletic Training Program. Advanced course in the recognition of injuries and of the need for support and bandaging. Lecture and demonstration of emergency procedures will be covered, as well as general strapping and bandaging.

A361 Coaching of Football (1.5 cr.) Fundamentals of offensive and defensive line and backfield play; technique of forward passing; outstanding rules; offensive plays; most frequently used defenses.

A362 Coaching of Basketball (1.5 cr.) Fundamentals of basket shooting, passing, ball handling, and footwork; patterns against man-to-man defense, zone defense, and zone pressure defense—full court and half court. Strategy of playing regular season and tournament play. Psychology of coaching.

A363 Coaching of Baseball (1.5 cr.) Fundamentals of pitching, catching, batting, base running, infield and outfield play; offensive and defensive strategy; organization and management.

A364 Coaching of Track and Field (1.5 cr.) Fundamental procedures in conditioning and training for cross-country, track, and field. Gives basic understanding of each event's coaching strategy and coaching psychology. Home-meet organization and management.

A367 Coaching of Swimming and Diving (1.5 cr.) Theory and methods of coaching swimming and diving; will cover technical, administrative, and organizational aspects involved in the process. Emphasis placed on fundamentals, conditioning, and coaching psychology.

A368 Coaching of Tennis (1.5 cr.) Theory and methods of coaching tennis; will cover technical, administrative, and organizational aspects involved in the process. Emphasis placed on fundamentals, tactics, conditioning, and conduct of practice sessions.

A369 Coaching of Golf (1.5 cr.) Theory and methods of coaching golf; will cover technical, administrative, and organizational aspects involved in the process. Emphasis on skill analysis, error identification and correction, special golf shots, and strategies for playing the course.

A370 Coaching of Soccer (1.5 cr.) Theory and methods of coaching soccer; will cover technical, administrative, and organizational aspects involved in the process. Emphasis on execution of advanced skills, team offense and defense patterns, conditioning of the player, and organizing practice sessions.

A371 Coaching of Volleyball (1.5 cr.) Theory and methods of coaching volleyball; will cover technical, administrative, and organizational aspects involved in the process. Emphasis on execution of advanced skills, team offense and defense patterns, conditioning of the player, and organizing practice sessions.

A372 Coaching of Softball (1.5 cr.) Theory of coaching competitive softball, both fast- and slow-pitch. Emphasis on individual and team play.

A381-A382 Laboratory Practice in Athletic Training I-II (2 cr. each) Laboratory hours are assigned so that students have an opportunity to practice athletic training skills during all sports seasons. Direct supervision and guidance provided by the athletic team physician and the athletic training staff.

A383 Therapeutic Management of Sports Injuries (3 cr.) An introduction to therapeutic techniques used on ill or injured athletes to facilitate enhanced recovery and safe return to competitive conditions. Lectures, demonstration of methods of application of therapeutic equipment, and exercise protocols will be covered.

A384 Therapeutic Exercise in Athletic Training (3 cr.) Principles in the use of therapeutic exercise techniques for treating the injured physically active person to facilitate enhanced recovery and safe return to activity. Lecture, demonstration and laboratory experience in the principles of therapeutic exercise.

A480 Care and Prevention of Athletic Injuries (1 cr.) Course designed to assist students in recognizing, understanding, and managing athletic injuries. Methods of taping and bandaging are emphasized.

A481 Practicum in Athletic Training (2 cr.) Variety of experiences provided through assignments to university varsity sports, high school sports, middle school sports, and reserve programs. Students will be under the experienced guidance and control of medical and athletic training supervisors.

A483 Principles of Sports Officiating (1 cr.) Topics include such sports as football, baseball, basketball, volleyball, and gymnastics. Ethics of sports officiating. Mastery, interpretation, and application of sports rules. Laboratory and classroom experiences. (Course may be repeated.)

A484 Interscholastic Athletic Programs (2 cr.) An overview of the operation of athletic programs for men and women in the School of Physical Education. Administrative structure on national and state levels. Policies and procedures as they pertain to budget,

facilities, eligibility, contest regulations, safety, and current trends.

F255 Human Sexuality (3 cr.) Survey of the dynamics of human sexuality; identification and examination of basic issues in human sexuality as they relate to the larger society.

F258 Marriage and Family Interaction (3 cr.) Basic personal and social factors that influence the achievement of satisfying marriage and family experiences.

H160 First Aid and Emergency Care (3 cr.) Lecture and demonstration of first-aid measures for wounds, hemorrhage, burns, exposure, sprains, dislocations, fractures, unconscious conditions, suffocation, drowning, and poisons, with skill training in all procedures.

H163 Introduction to Health (3 cr.) Introduction to and survey of the field of school and community health education.

H195 Principles and Applications of Lifestyle Wellness (3 cr.) This course will increase an awareness of and provide instruction pertaining to wellness, and will assist the student with making healthy lifestyle choices. The course supports an emphasis on measurable parameters within the physical dimension of wellness, and incorporates the remaining dimensions of emotional, intellectual, occupational, social, and spiritual wellness.

H305 Women's Health (3 cr.) Examines the relationship of women to health and health care. Five dimensions of health: physical, mental, emotional, social, and spiritual provide a framework for comparison and contrast of health concerns unique to women and common to both sexes at all ages.

H318 Drug Use in American Society (3 cr.) An interdisciplinary approach to the study of drug use in American society. The course will examine the effects of alcohol, tobacco, and illicit drugs on the physical, mental, and social health of the individual.

H363 Personal Health (3 cr.) Acquaints prospective teachers with basic personal health information; provides motivation for intelligent self-direction of health behavior with emphasis on responsibilities as citizens and as teachers. Study of physiological and psychological bases for health; drugs and other critical issues; and family health.

H461 Teaching of First Aid (2 cr.) P: HPER H160. Advanced consideration of first-aid subject matter, along with orientation in methods, techniques, and teaching devices in first-aid courses. Practical classroom instruction required.

H464 Organization of Health Education (3 cr.) P: HPER H363 or consent of instructor. Organization of total health program involving health service, healthful school living, and health instruction. Content and materials suitable for a high school health course stressed. Introduction to public health, functions of voluntary and official agencies, and textbook evaluation.

H465 Community Health Education (3 cr.) Addresses the place of the teacher in community health education programs. Considers the

need to program, various media and methods which may be employed, and the place of existing agencies in the program.

N220 Nutrition for Health (3 cr.) Basic principles of nutrition, with emphasis on identification, functions, and food sources of nutrients required by individuals for optimum health and development.

P110 Dance in Elementary Education (2 cr.) Instruction in fundamental, locomotor, and axial dance movements and the relation of dance movement to music. Singing games, simple folk dances, and creative dance appropriate to children K-6.

P150 Gymnastics I (2 cr.) Basic skills in gymnastics and procedures used in teaching these activities.

P195 History and Principles of Physical Education (3 cr.) Understanding and interpretation of principles of modern physical education programs. Contributions of historical programs related to development of present-day programs.

P200 Microcomputer Applications in Physical Education (3 cr.) A hands-on introduction to the use of microcomputers as problem-solving tools in physical education. Course content includes an introduction to microcomputers and DOS functions; word processing, spreadsheets, and database skills; and experience with graphic and sport-specific application programs.

P205 Structural Kinesiology (3 cr.) Overview of basic human body structures and functions appropriate for beginning students in physical education. Fundamental concepts concerning the interaction of biological and mechanical aspects of the musculoskeletal and neuromuscular structures. Emphasis on practical application to study and teaching of skilled human movement.

P210 Dance in Secondary Education (2 cr.) Methods and materials of folk, square, and social dance skills for junior and senior high students. Introduction to modern dance, modern jazz techniques, and choreography.

P215 Principles and Practice of Exercise Science (3 cr.) A study of the scientific principles related to physical fitness and the practical application of principles to directing fitness programming in school, recreational, and corporate settings. Students will be involved in setting up, participating in, and evaluating personal fitness activities.

P219 Performance and Teaching of Stunts, Tumbling, and Novice Gymnastics (1 cr.) Instruction and practice teaching of fundamental stunts, tumbling activities, and novice gymnastic movements.

P229 Performance and Teaching of Flag Football (1 cr.) Instruction and analysis of skills, techniques, and strategies in flag football. Development of skills in unit planning, drills, and modified game forms.

P230 Performance and Teaching of Golf (1 cr.) Instruction and analysis of skills, techniques, and strategies in golf. Development of skills in unit planning, error analysis, and correction.

P233 Performance and Teaching of Softball (1 cr.) Instruction and analysis of skills, techniques, and strategies in softball. Development of skills in unit planning, drills, and modified game forms.

P235 Performance and Teaching of Aquatic Activities (1 cr.) Primarily for physical education and recreation majors. Emphasizes techniques of teaching swimming as well as the improvement of the students' swimming skills.

P236 Performance and Teaching of Tennis (1 cr.) Instruction and analysis of skills, techniques, and strategies of tennis. Development of skills in unit planning, error analysis, and correction.

P237 Performance and Teaching of Track and Field (1 cr.) Instruction and analysis of skills, techniques, and strategies of track and field. Development of skills in unit planning, error analysis, and correction.

P241 Performance and Teaching of Basketball (1 cr.) Instruction and analysis of skills, techniques, and strategies of basketball. Development of skills in unit planning, error analysis, and correction.

P242 Performance and Teaching of Soccer (1 cr.) Instruction and analysis of skills, techniques, and strategies of soccer. Development of skills in unit planning, error analysis, and correction.

P243 Performance and Teaching of Volleyball (1 cr.) Instruction and analysis of skills, techniques, and strategies of volleyball. Development of skills in unit planning, error analysis, and correction.

P244 Performance and Teaching of Cardiovascular Fitness (2 cr.) This course will focus on teaching cardiovascular fitness activities in physical education settings. These concepts will be covered: aerobic fitness, fitness prescription, training principles, fitness infusion into traditional activities, lifetime fitness activities (youth through older adults), and safety. Emphasis on lesson planning and pedagogy.

P245 Performance and Teaching of Resistance Training (2 cr.) This course will focus on teaching resistance training in physical education settings. These concepts will be covered: basic muscle anatomy, equipment and facility safety, proper applications and techniques, etiquette, equipment options, considerations for youth through older adults. Emphasis on lesson planning and pedagogy.

P271 Individual Sports (1 cr.) Teaching of and participation in sports activities some of which are not included in other skills courses in the curriculum. Includes badminton, bowling, archery, and golf.

P280 Principles of Athletic Training and Emergency Care (2 cr.) An introduction to the principles of injury prevention. Lecture and demonstration of emergency measures; for example, fractures, sprains, dislocations, and spinal injuries. Skill training in bandaging, strapping, and splinting techniques emphasized.

P290 Movement Experiences for Preschool and Elementary Children (2 cr.) Provides the student with knowledge of potential outcomes of preschool and elementary school motor development programs,

of how to implement such programs, and of appropriate movement experiences for young children. Also provides the student with opportunities for observing and teaching young children in a structured gymnasium setting.

P324 Recreational Sports Programming

(3 cr.) Course provides an overview of the programmatic elements and techniques that currently exist in recreational sports. Specific topics include informal, intramural, club, and extramural programming; value of recreational sports; programming techniques; publicity and promotion; facility utilization; equipment concerns; safety; liability; and program observation.

P327 Administration, Maintenance, and Construction of Aquatic Facilities (3 cr.)

Information in pool management, maintenance, and construction with emphasis on the newest design, information, and construction techniques.

P373 Progressive Resistance Exercise and Sports Conditioning (3 cr.)

P: BIOL N261 Human Anatomy or equivalent is recommended. This course focuses on progressive resistance exercise and its application in physical conditioning for the competitive athlete, the fitness enthusiast, and various special populations. Topics covered include basic muscle physiology, kinesiology, musculoskeletal adaptation to resistance exercise, modes of training, muscle-specific exercises, and exercise technique.

P374 Basic Electrocardiography for the

Exercise Sciences (2 cr.) Introduction to the basic concepts, theory, and interpretation of electrocardiograms (ECG/EKG), and their uses in fitness programs that deal with healthy people and with cardiac rehabilitation patients.

P390 Growth and Motor Performance of

School-Age Youth K-12 (2 cr.) A study of growth and developmental characteristics of school-age youth. Emphasis is placed on motor development and movement performance, and the relationship to cognitive and affective behavior. Supervised teaching experiences are an integral part of the course.

P393 Professional Practice Programs in Physical Education, Health, and Recreation

(3-10 cr. arranged) P: sophomore standing or higher, and approval of the instructor and the Office of Professional Practice Programs. This course is designed to provide the student with a quality career-related work experience. Evaluation by employer and faculty sponsor.

P397 Kinesiology (3 cr.)

P: BIOL N261. Application of facts and principles of anatomy, physiology, and mechanics to problems of teaching physical education skills and activities of daily living.

P398 Adapted Physical Education (3 cr.) P: BIOL N261 and HPER P397. Study of conditions that require physical education programs to be adapted to special needs of individuals, including analysis of normal and faulty postures. Principles and practices in application of exercises and activities for specific handicap conditions.

P399 Practicum in Adapted Physical Education (1-2 cr.) P: P398. A practical learning experience in

adapted physical education with children with disabilities. Course may be repeated.

P402 Ethics in Sport (3 cr.) A study of the nature of ethics in sport with an emphasis on current application of moral principles and values. The relationship of ethics to social issues in sport will be explored, including philosophical and historical perspectives.

P403 Rhythmic Aerobic Training (3 cr.) P: BIOL N261 and HPER P397. This course focuses on principles and processes of designing, organizing, and teaching a variety of rhythmic aerobic training forms. Topics covered include a review of basic exercise and rhythmic movement principles and how they are used to create modes of rhythmic aerobic training used in group and individual exercise programs.

P405 Introduction to Sport Psychology (3 cr.)

Theory and practical application of psychology to learning, teaching, and coaching of movement and sport skills. Students are expected to have completed an introductory psychology course prior to enrolling.

P409 Basic Physiology of Exercise (3 cr.)

P: BIOL N217 and BIOL N261. A survey of human physiology parameters as related to physical exercise and work and the development of physiological fitness factors. Physiological foundations will be considered.

P410 Physical Activity Programming for Individuals With Disabilities and Other Special Populations (3 cr.)

P: HPER P409. Course focuses on the provision of physical activity programs in community settings for individuals with special needs. Topics include laws relating to service delivery, conditions which may lead to impairment of ability to participate in physical activity, facility and equipment accessibility, activity modifications, contraindications to activity, and organized disabled sport.

P411 Legal Aspects and Risk Management in Sports Settings (3 cr.)

An introduction to legal principles involved in sport. Tort liability including intentional tort, negligence, and product liability. Covers constitutional law issues, particularly as they relate to athletic eligibility, athletes' rights, sex discrimination, and drug testing. Discussion of sport contracts.

P421 Special Topics in Physical Education

(1-3 cr.) An in-depth study of a selected topic from the many areas that have contributed to the development of physical education in today's world. Topics will vary. Directed to upper-level students with a special interest in the topic presented.

P444 Issues in Physical Education (3 cr.)

A senior seminar. Major arguments pro and con on a number of controversial ideas in the field of physical education are considered.

P452 Motor Learning (3 cr.) P: BIOL N261 and BIOL N217. An examination of factors that affect the acquisition and performance of motor skills. Topics include perception, psychomotor learning, practice methods, and theories of neuromuscular integration. Open to juniors and seniors only.

P475 Motor Assessment and Service Delivery for Children, Youth, and Adults with Disabilities (3 cr.) Selecting and applying

appropriate evaluation techniques for individuals with disabilities. Using assessment results to plan and implement appropriate physical activity programs. Service delivery models for physical education in public school and community settings, including consulting and conferencing skills.

P490 Motor Development of Preschool and

Elementary School Children (3 cr.) A study of the motor development of children from infancy through middle childhood. Emphasis is placed on observing and analyzing characteristic movement behavior and motor performance of children with application to developmentally appropriate movement and experiences.

P493 Tests and Measurements in Physical Education (3 cr.)

Theory of measurement in physical education, along with selection and administration of appropriate tests, and interpretation of their results by fundamental statistical procedures.

P495 Laboratory Teaching in Physical

Education Program (1 cr.) P: HPER P290 and consent of school. Prepractice teaching experience. Students assist and help teach activities in the Physical Education Program. Student must have had a course in the teaching of the chosen activity before they are allowed to enroll.

P497 Organizational and Curricular Structures of Physical Education K-12 (2 cr.)

Techniques in organization and development of all-grade curriculum in physical education. Development and implementation of extracurricular activities.

P498 Practicum in Physical Education and

Athletics (1-3 cr.) A practical learning experience in teaching and/or coaching under the guidance of faculty and supervisor. Only Satisfactory (S) or Fail (F) grades given.

P499 Research in Physical Education and

Athletics (cr. arr.) This course is open to junior majors or minors in physical education.

R275 Dynamics of Camp Leadership (2 cr.)¹

Role of counselors in relation to objectives, organization, guidance, leadership skills, and program resources in organized camps.

R423 Visitor Behavior (3 cr.)

Examines the theory and findings of visitor and tourism research as it is conducted in such recreation and leisure settings as parks, museums, towns, historic sites, sporting facilities, and resorts. Topics include visitor motivations, expectations, social interactions, and assessment. Students will learn nine techniques for gathering information from and about visitors.

R470 Professional Field Experience in

Recreation (1-3 cr.) P: Consent of instructor. Practical/applied field work in a HPER setting.

R474 Camping Leadership II (2 cr.)

Advanced camping with an emphasis on practical experience in a camp setting.

S360 Highway Safety Administration (3 cr.)

Introduction to the organization and structure of both U.S. and Indiana highway traffic safety systems.

¹The Camp Leadership Course must be completed in an intensive session at the end of the first year a student enrolls in the school.

Emphasis placed upon system actors, agency responsibilities, the pervasiveness of motor accidents and their consequences, and system responses to reduce the frequency and severity of motor vehicle crashes.

S441 Readings in Safety Education (2 cr.) In-depth readings related to a specific safety education topic.

S456 Traffic Safety Education for Teachers (4 cr.)² Materials and methods for high school classroom and practice driving instruction. Psychophysical limitations of drivers, driving procedures, car procurement, scheduling, public relations, maintenance, pedestrian protection, skill exercises, road training. Students teach beginning drivers. Driver's license required.

S458 Driver Education Multiple Instruction Techniques (3 cr.)² Multimedia techniques, methods, and materials of instruction including multimedia systems and driving simulators. Multiple-car methods of instruction, including the design and operation of off-street driving ranges. Open only to juniors, seniors, and graduate students who will be completing certification in the field of driver education.

Graduate Physical Education Courses

H510 Organization and Administration of School Health Programs (3 cr.) Recommends criteria for the organization, implementation, and evaluation of health education programs in schools. Covers the areas of administration, health instruction, health services, and a healthful school environment. Discusses special roles and responsibilities of teachers, nurses, administrators, and other school and community personnel in promoting child health.

H517 Workshop in Health Education (1-3 cr.) Interesting topics of relevance to individuals in school and public health and related disciplines. Conducted in workshop fashion under the direction of faculty members. Emphasizes practical application, group involvement, and the use of resource personnel. Specific topics vary; course may be repeated for credit.

H522 Women's Health (3 cr.) Examines the relationships of women to health and health care, with attention to health concerns unique to women and common to both sexes throughout the life span. Emphasizes current information related to women's health issues and the health educator's role in women's health.

K500 Special Topics in Physical Education (1-3 cr.) Selected topics in physical education.

K506 Computer Applications in Physical Education (3 cr.) Hands-on applications in the use of microcomputers as problem-solving tools in physical education. Programming applications and problems in physical education, sport sciences, administration, athletics, and research.

K510 Administrative Theory of Competitive Sports Programs (3 cr.) Organization of high school athletics with reference to national, state, and local control. Staff, program, budget, health and safety, facilities, and other phases of administration.

K511 Legal Issues in the Sport Environment (3 cr.) An introduction to legal principles involved in amateur sport. Constitutional law issues such as athletic eligibility, NCAA due process, gender discrimination, and drug testing. In-depth explanation of tort liability. Contracts in amateur sport settings.

K525 Psychological Foundations of Exercise and Sport (3 cr.) Addresses theoretical and empirical aspects of topics including exercise and mental health, anxiety and sport performance, "personology" and sport, overtraining, exercise adherence, and perceived exertion.

K530 Mechanical Analysis of Human Performance (3 cr.) P: ANAT A215 or equivalent, PHYS P201 recommended. Newtonian mechanics applied to human movement. Analysis of sports techniques.

K533 Advanced Theories of High-Level Performance (3 cr.) An integrative analysis of the physiological, psychological, and biomechanical principles, mechanisms, and phenomena underlying the acquisition of the capacities and abilities required for high-level physical performance.

K535 Physiological Basis of Human Performance (3 cr.) P: PHYS P215 or equivalent. A study of physiological changes that occur with exercise. Emphasis on cardiorespiratory, muscular, and biochemical adaptations to training, and how these adaptations affect human performance. Physiological principles are applied to athletic training, adult fitness, weight regulation, and physical therapy.

K552 Problems in Adapted Physical Education (3 cr.) A study of problems as they relate to philosophy, procedures, and practices in adapted physical education.

K571 Administration of Physical Education (3 cr.) Prepares individuals to assume administrative roles in physical education. Concepts and practices related to the administration of physical education. Procedures for developing and evaluating learning experiences. Aspects of administration pertaining to programming, personnel, facilities, equipment, supplies, safety, and in-service programs.

K572 The Physical Education Curriculum (3 cr.) Influences on curricula. Designs for developing, revising, and evaluating physical education curricula. Alternative modes of curriculum organization. The interdependence of general education, specialized education, exploratory education, and enrichment education. The roles of teachers and administrators in the production of curricula. Suggested formats.

K576 Measurement and Evaluation in Physical Education (3 cr.) Theory of measurement in physical education, along with selection and administration of appropriate tests, and interpretation of results by statistical procedures. Project required to apply the theories involved.

K601 Readings in Kinesiology (cr. arr.) P: Graduate grade point average (GPA) of at least 3.0. Guided readings for broadening information about and understanding of the profession.

K602 Independent Study and Research (cr. arr.) P: Graduate GPA of at least 3.0.

Independent research conducted under the guidance of a graduate faculty member.

Elective Physical Education Program

D101 Beginning Ballet I (1 cr.) This course is designed for the adult learner in ballet technique. It includes barre work and center combinations that promote strength, flexibility, balance, and coordination. Ballet serves as a foundation for other forms of dance and enhances body posture and carriage.

D110 Beginning Modern Jazz Dance (1 cr.) This course is designed for the adult beginner in modern jazz dance and will be concerned with rigorously training the body in the styles of leading jazz educators. Warm-up exercises and jazz combinations will be performed, and historical, social, and ethnic dance contributions will be examined.

D201 Modern Dance Workshop (1 cr.) Collaboration of dance faculty in providing a wide variety of movement experiences in the areas of technique, composition, and improvisation. This course may be repeated.

D202 Intermediate Ballet (1 cr.) This course is a continuation of HPER D101 or is for the adult beginner with previous experience in ballet technique. It will cover a technical vocabulary of barre and center work to stimulate both the mind and the body.

D211 Advanced Technique I (2 cr.) P: HPER E355 or permission of the instructor. Designed to allow the student to develop a higher level of technical proficiency, with an emphasis on the application and analysis of various movement principles as they relate to dance and performance.

D212 Advanced Technique II (2 cr.) P: HPER D211. An extension of principles examined in D211 through the use of longer and more complex movement sequences, with an emphasis on style and performance.

D218 Modern Jazz Dance Technique (1 cr.) Instruction in jazz dance technique derived from the styles of Luigi and Gus Giordano; special emphasis on centering, precision and clarity of movement, and coordination and performance skills such as style and visual focus.

D221 Dance Composition I (2 cr.) P: HPER E255 or E355. Through problem-solving assignments and appropriate dance composition, tools for discovering movement will be developed.

D332 Dance and the Allied Arts II (3 cr.) P: Permission of instructor. Historical development of dance and related art forms, Renaissance through contemporary.

D351 Teaching of Modern Dance (1 cr.) P: HPER D221. Study of various approaches, methods, and materials for teaching dance at the secondary level, including procedures for evaluation.

² May be taken for graduate credit

D421 Choreographic Performance Project

(2 cr.) P: Senior dance performance majors only. Under faculty guidance, each student is responsible for initiating and developing a completed work for concert performance.

D441 Dance Production I (2 cr.) Basic orientation to technical theatre, specifically for dance. Production methods for publicity, audio-visual materials, and make-up design. Includes presentation of an original lecture-demonstration.

E100 Experiences in Physical Activity (1 cr.) Any of a series of courses in new and developing fitness and activity areas.

E102 Aerobic Dance (1 cr.) Course is a total fitness class that emphasizes cardiorespiratory conditioning, flexibility, muscular endurance, and coordination through rhythmical body movement. Only Satisfactory (S) and Fail (F) grades are given.

E105 Badminton (1 cr.) Beginning instruction in basic skills and techniques of badminton for singles, doubles, and mixed doubles play. Emphasis on basic skill development, rules, and strategy.

E109 Ballroom and Social Dance (1 cr.)

Instruction in the techniques of ballroom dance including fox trot, waltz, cha-cha, tango, rumba, samba, and fad dances.

E111 Basketball (1 cr.) Instruction in fundamental skills of shooting, passing, ball handling, footwork, basic strategies of offensive and defensive play, and interpretation of rules.

E112 Bicycling (1 cr.) Beginning instruction in the principles of fitness through a cycling program. Fitness testing will be done and cardiovascular training will be emphasized. Proper riding technique, safety, and other features of competitive and recreational cycling will be discussed.

E119 Conditioning (1 cr.) Instruction in basic principles of conditioning and fitness. Emphasis on muscular strength, muscular endurance, flexibility, and cardiorespiratory endurance. Designed for students without prior knowledge of conditioning methods.

E121 Conditioning and Weight Training

(1 cr.) Instruction in basic principles of conditioning and weight training. Emphasis on muscular strength, muscular endurance, flexibility, and cardiorespiratory endurance.

E123 Diving (1 cr.) Instruction in fundamental dives including approach, takeoff, execution of the dive, and entry into the water. Emphasis on basic forward, backward, reverse, and twisting somersaults. Course designed for all levels regardless of past diving experience.

E125 Exercise to Music (1 cr.) Instruction in exercises for flexibility and muscle toning. Exercises are set to musical routines.

E127 Fencing (1 cr.) Instruction in guard position, footwork, and basic defensive and offensive skills. Emphasis on fencing with foil and an overview of the sabre and épée.

E130 Army Physical Fitness (2 cr.) The path to total fitness requires a combination of physical

conditioning, mental conditioning, and commonsense dietary considerations. Army Physical Fitness is for those willing to accept a disciplined regimen proven to lead to total fitness.

E131 Folk and Square Dance (1 cr.) Introduction to folk dance in the United States and other countries. Instruction in fundamentals of movement, basic folk dance techniques, and square-dance patterns in traditional and modern folk and square dances.

E133 Fitness and Jogging I (1 cr.) Beginning instruction in the basic principles of fitness as they apply to a jogging program. Emphasis on cardiorespiratory endurance and flexibility. Basic concepts underlying Dr. Kenneth Cooper's aerobic program included. Course designed for students without prior experience in jogging programs or in aerobics levels I through III.

E135 Golf (1 cr.) Beginning instruction in techniques for putting, chipping, pitching, iron swing, and wood stroke. Course includes rules and etiquette of golf. Students play on par-3 courses. Fee charged.

E137 Gymnastics (1 cr.) Beginning instruction in basic skills and incorporation of basic routines in trampoline, tumbling, and vaulting. Emphasis on events performed by both men and women. All events will be included.

E139 Handball (1 cr.) Instruction in basic skills for beginning players. Includes both four-wall singles and doubles games.

E148 Tai Chi Chu'an (1 cr.) Instruction in basic skills and techniques for beginning-level participants in this non-contact martial art. Topics include breathing, centering, postures, and movement sequences.

E149 Judo (1 cr.) Beginning instruction in techniques for throwing, grappling skills, and limited self-defense. Students should achieve technical skill level of yellow belt. Judo uniform required.

E150 Karate (1 cr.) Beginning instruction in techniques for blocking, kicking, striking, punching, limited free fighting, and self-defense. Students should achieve technical skill level of yellow belt. Uniform required.

E151 Self-Defense (1 cr.) Instruction techniques for practical self-defense skills and situations. No uniform required.

E155 Modern Dance (1 cr.) Beginning instruction in modern dance technique, stressing knowledge and application of movement principles essential to dance training.

E159 Racquetball (1 cr.) Instruction in basic skills for beginning players. Includes both four-wall singles and doubles games.

E165 Soccer (1 cr.) Instruction in fundamental techniques, rules, basic team tactics, and strategies. Emphasis on competitive game scrimmages and fundamental drills.

E168 Swimming—Nonswimmers (1 cr.) Beginning instruction in self-rescue, remedial swimming skills, and several basic strokes. For the student with no swimming skills.

E181 Tennis (1 cr.) Beginning instruction in the fundamental skills of forehand and backhand strokes and serves. Competitive play in women's, men's, and mixed doubles.

E185 Volleyball (1 cr.) Instruction in fundamental skills of power volleyball. Emphasis on overhand serve, bump, set, dig, and spike. Team offensive and defensive strategies included.

E187 Weight Training (1 cr.) Instruction in basic principles and techniques of conditioning through use of free weights. Emphasis on personalized conditioning programs.

E189 Wrestling (1 cr.) Instruction in basic moves of takedown, escape rides, reversal, and pinning combinations. Class instruction appropriate for beginning- and intermediate-level wrestlers.

E190 Yoga (1 cr.) Introduction to the basic principles and techniques of yoga.

E200 Military Science—Leadership Lab

(1-6 cr.) P: Minimum grade point average (GPA) of 2.0, 54 semester credits. Conducted at Fort Knox, Kentucky, for six weeks, course will cover basic military skills and leadership. Students earn 1-6 credits, based on military science basic courses previously taken. Students should not have completed military basic training or Reserve Officer Training Corps (ROTC) basic course.

E219 Weight Loss and Exercise (2 cr.) Designed for overweight students, this class will stress the importance of diet and exercise in permanent weight control. Uses dietary behavior modification techniques and an exercise program to achieve a gradual reduction to and maintenance of ideal weight. Only Satisfactory (S) and Fail (F) grades given.

E230 Advanced Army Physical Fitness (2 cr.) P: E130 or consent of instructor. Continuing along the path to total fitness begun in E130, this course emphasizes the leadership aspect of army physical fitness. Students will lead physical training sessions, participate in and lead formation runs, and continue the discipline regimen begun in E130.

E250 Karate—Intermediate (1 cr.) P: Yellow-belt technical level or permission of instructor. Instruction in advanced applications of basic techniques and free fighting. Students should achieve technical level of green belt. Karate uniform required.

E255 Modern Dance—Intermediate (1 cr.) P: HPER E155 or permission of instructor. Intermediate modern dance technique stressing knowledge and application of movement principles essential to dance training.

E268 Swimming—Intermediate (1 cr.) Instruction designed to help the less-skilled swimmer master the five basic strokes and be proficient in self-rescue and basic rescue skills.

E270 Scuba (1 cr.) Introduction to scuba diving. Emphasis on safety and avoidance of potential dangers. A noncertification course.

E275 Aquatic Conditioning (1 cr.) Course designed for highly skilled swimmers interested in training methods that may be used by noncompetitive swimmers.

E281 Tennis—Intermediate (1 cr.) Instruction in spin service, volley, lob, and advanced drive placement. Emphasis on singles and doubles playing strategies.

E355 Modern Dance I—Advanced (1 cr.) P: HPER E255 or permission of instructor. Advanced techniques in modern dance with emphasis on performance of movement patterns and individual creative work.

E356 Modern Dance II—Advanced (1 cr.) P: HPER E355. Course may be repeated. Continuation of advanced techniques in modern dance with emphasis on performance of movement patterns and on individual creative work.

E371 Advanced Scuba (1 cr.) P: HPER E370 or National Scuba Certification. Course provides students with practical knowledge in advanced scuba. Topics include natural and compass navigation, search and recovery, night or limited visibility, and specialty and deep-diving knowledge.

E475 Lifeguard Certification (1 cr.) Instruction per American Red Cross standards prepares students to lifeguard at pools and non-surf beaches. Corequisites (set by the Red Cross) needed to earn the Lifeguarding Certification (i.e., Standard First Aid and CPR) are included in this course.

E477 Water Safety Instructor (2 cr.) Instruction prepares students to teach American Red Cross swimming and water safety courses to infants/parents, preschoolers/parents, youths, and adults. Includes safety course for swim coaches. Students meeting written and skill criteria earn American Red Cross Water Safety Instructor certificate.

Department of Tourism, Conventions, and Event Management (TCEM) Courses

The courses below represent the total offerings of the Department of Tourism, Conventions, and Event Management. Not all courses are offered every semester. The number of credit hours given for a course is indicated in parentheses following the course title. The abbreviation P refers to prerequisites.

TCEM 100 Introduction to Tourism and Hospitality Management (3 cr.) An overview of the industries. Management theory and responsibilities in addition to career paths are presented.

TCEM 110 College Life Orientation (1 cr.) To introduce new TCEM majors to the department, school, and university to ensure a successful beginning to their academic careers.

TCEM 115 Computers in the Tourism and Hospitality Industry (3 cr.) Establishes computer competency with operating systems, spreadsheets, and

word processing. Explores applications of computers in the tourism industry with emphasis on programs impacting the management of organizations.

TCEM 119 Travel Career Development (3 cr.) A comprehensive investigation of the broad range of available travel services and products. Skills needed to begin a productive career in the travel industry are emphasized.

TCEM 141 Financial Accounting for the Service Industries (3 cr.) Fundamental accounting principles and procedures applied to the hospitality and service industries. Includes study of the uniform system of accounts, financial statements, special purpose journals, and subsidiary ledgers unique to the hospitality and service industries.

TCEM 171 Introduction to Convention/Meeting Management (3 cr.) An overview of the conventions, expositions and meetings industry. Focus will be on the operational aspects of various industry segments and the intra-industry interaction of each.

TCEM 172 The Development and Management of Attractions (3 cr.) An examination of the process of developing visitor attractions and a discussion of the main issues involved in their management.

TCEM 181 Front Office Operations (3 cr.) Concepts of organization, communication, ethics, and policy formulation in the front office. Introducing the basic techniques and trends in systems and equipment available to meet the needs of the management and the guest.

TCEM 191 Sanitation and Health in Food Service, Lodging, and Tourism (3 cr.) The application of sanitary and public health engineering principles to food service and lodging operations.

TCEM 212 Tourism and Hospitality Management Principles (3 cr.) P: TCEM 100. The principles of planning, organizing, directing, and controlling as applied to the hospitality service industry. Topics relating to motivation and leadership will be stressed. Issues of organizational change, organizational effectiveness, and the nature of managerial work will be addressed.

TCEM 218 Wines of the World (3 cr.) P: At least 21 years of age. An examination of the wines produced in other countries. Identify the characteristics of the growing regions, types of wines produced, economic considerations of purchasing imported wines, and marketing these wines to increase beverage sales.

TCEM 231 Marketing Tourism and Hospitality (3 cr.) Development, use, and evaluation of effective merchandising, advertising, and public relations techniques in the hospitality and tourism industries.

TCEM 241 Financial Analysis and Decision Making in Tourism and Hospitality Operations (3 cr.) P: TCEM 141. Managerial and financial analyses of numerical data used for decision making. Consideration of systems, techniques, information types, and presentational forms used by hospitality management. Emphasis on situations oriented to the hospitality industry.

TCEM 271 Mechanics of Meeting Planning (3 cr.) P: TCEM 171. An analysis of details pertinent to the organization and execution of a meeting. Topics include finances and contracts, site selection, program development, marketing, and evaluation and wrap-up.

TCEM 272 The Tourism System (3 cr.) Travel, trends, travel modes, and economic impact on destination area. Emphasis on local, regional, and national tourism.

TCEM 281 Hotel Management (3 cr.) P: TCEM 181. All components of a hotel are reviewed to examine the efficient flow of activities among departments for optimal operation. Includes discussion of operational departments relevant to the type of property. Focuses on management procedures to maximize guest service and profit.

TCEM 305 Newsletter Design and Technology Work Experience (1 cr.) In-service training and practical experience in the design and development of a newsletter.

TCEM 306 Destination Development (3 cr.) P: TCEM 212, TCEM 231, TCEM 352. Preparation of a destination development plan that presents a comprehensive outline of a proposed tourism operation.

TCEM 308 Wine Selection (3 cr.) P: At least 21 years of age. Topics will include types of wines, wine quality, and serving suggestions. Wine tastings will be included.

TCEM 310 Special Event Management (2 cr.) Course topics will include planning for social events such as themed parties, weddings, or balls; planning for fundraiser events; planning recognition events; and planning entertainment events.

TCEM L310 Special Event Management Laboratory (1 cr.) Laboratory experiences in special event execution.

TCEM 311 Procurement Management (3 cr.) Identifies and describes foods, beverages, supplies, equipment, furniture, and furnishings. Provides methods and criteria for recognizing quality and for evaluating, specifying, purchasing, and inspecting these materials.

TCEM 312 Human Resource Management for the Service Industries (3 cr.) P: TCEM 212. Covers the concepts of management of people for effective operation of institutions involving supervisory development and communications; the pretesting, training, and evaluating of employees; and the development of attitudes and morale of people working together.

TCEM 313 Hospitality Career Planning (1 cr.) Development of skills and understanding of tools and techniques of planning for a career in the hospitality industry. Emphasis on preparation for the job search.

TCEM 317 Seminar Planning (1 cr.) Seminar planning to provide education update for business and industry or for professional licensing. Content selection, speaker arrangement, site arrangement, and quality evaluation are possible course topics.

TCEM 318 Wine Management (3 cr.) Students will be presented with a concise, practical guide to profitable wine management. The course will incorporate the best experience amassed by operations over the years, with heavy emphasis on the recent trends.

TCEM 319 Management of Sports Events (3 cr.) P: TCEM 171. Amateur or professional sport event planning. Course will include discussion of site selection, logistics, personnel, housing, food, and legalities of hosting an event.

TCEM 322 Hospitality Facilities Management (3 cr.) Technical and managerial issues related to the operation and maintenance of the physical plant and equipment in hospitality industry facilities.

TCEM 334 Cultural Heritage Tourism (3 cr.) P: TCEM 272. Examines the balance between visitor interests and needs as compared to protecting cultural and heritage resources. Looks at ways of linking quality cultural heritage tourism to community development. Special emphasis will be placed on Indiana cultural and heritage tourism.

TCEM 352 Promotional Communications (3 cr.) P: BUS X204 or consent of instructor. Provides information on the field of personal and public relations. Explores effective public relations methods. Focuses on the relationship-oriented decisions a public relations professional must make based upon different circumstances that arise within an organization.

TCEM 362 Economics of Tourism (3 cr.) P: ECON 201, TCEM 272. Discussion of the economic impact of travel on tourism's various sectors and of the quantitative methods that can be applied to travel forecasting and tourism projects.

TCEM 372 Global Tourism Geography (3 cr.) P: TCEM 272. Analysis of U.S. and world travel destinations, including the exploration of principal geographic features, population centers and attractions, habits, customs, and traditions, and festivals and events, as these relate to the hospitality and travel industry. The major airline and airport/city codes in North America and overseas are also covered.

TCEM 377 Exhibit Marketing (3 cr.) P: TCEM 231. A successful exhibit can be one of the most powerful sales and marketing tools in any company's arsenal. This course is designed to help students through every phase of the endeavor—from the initial planning stage to implementation and post-show follow-up.

TCEM 385 Beer and Spirits Management (3 cr.) Students will be introduced to the basic principles of beer and spirits production with a primary focus on manufacturing, quality criteria, beer and spirits styles, and sensory standards. Evaluation by tasting is an integral part of the course.

TCEM 387 Tourism Internship (1-12 cr.) P: Junior standing. Provides students with an opportunity to improve their operational/ managerial skills by working in new areas.

TCEM 391 Event Catering Management (1 cr.) Exploration and creative use of foods and beverages to meet the clients' needs for on-premise and off-

premise catering. Concepts of management for the effective operation of catering businesses with analysis of financial framework, menu planning, customer relations, and production-service logistics.

TCEM L391 Event Catering Management Laboratory (1 cr.) A laboratory to execute on-premise and off-premise catered events. Course is completed at Elkhart Lake, Wisconsin.

TCEM 392 Destination Development (1 cr.) P: TCEM 212, TCEM 231, TCEM 352. To prepare destination development plans that present a comprehensive outline of a proposed tourism operation.

TCEM 411 Hospitality Law (3 cr.) P: TCEM 212, TCEM 312. Rights and duties of innkeepers and restaurateurs, civil rights, contracts, negotiable instruments, and types of organizations.

TCEM 461 Tourism Research and Planning Development (3 cr.) P: TCEM 212, TCEM 362, and STAT 302. This course discusses tourism research planning and development as a process, with emphasis on goal achievement for both tourism businesses and host communities.

TCEM 472 Global Tourism (3 cr.) P: TCEM 272. Critical issues, problems, and opportunities that face the tourism industry.

TCEM 499 Operational Analysis (3 cr.) P: TCEM 212, TCEM 231, TCEM 241, STAT 302, and senior classification. Combines all of the areas concerned with executive management, marketing, personnel, cost controls, etc. Examines the hospitality organization as a total system, with emphasis on strategic planning, systems design, and problem analysis.

Foods and Nutrition (FN) Courses

FN 203 Foods: Their Selection and Preparation (3 cr.) Principles of food selection, preparation, and meal planning, including purchasing guides, nutrition principles, and meal service.

FN 297 Food and Nutrition Trends and Issues (1 cr.) Exploration of trends and issues in food and nutrition that relate to the hospitality industry.

FN 303 Essentials of Nutrition (3 cr.) Credit not given for both FN 303 and FN 315. Basic nutrition and its application in meeting nutritional needs of all ages. Consideration is given to food selection, legislation, and community nutrition education programs.

FN 309 Vegetarian Lifestyles (1 cr.) Course topics will include reasons for selecting vegetarianism and types of vegetarianism.

FN 313 Heart-Healthy Principles of Menu Planning and Food Preparation (3 cr.) Basic principles of nutrition as applied to menu planning, food preparation, and recipe modification. Computerized nutrient analysis and laboratories will be used to practice principles.

FN 315 Fundamentals of Nutrition (3 cr.) P: CHEM C101 or BIOL N217 or consent of instructor. Credit not given for both FN 303 and FN 315. Basic principles of nutrition and their application in meeting nutritional needs during the life cycle.

Administrative Officers

PAUL NICHOLAS KELLUM, Ed.D., *Dean of the School of Physical Education, Indianapolis, and Associate Dean of the School of Health, Physical Education, and Recreation, Bloomington*

LINDA BROTHERS, Ph.D., *Chairperson of the Department of Tourism, Conventions, and Event Management*

ELIZABETH JONES, P.E.D., *Chairperson of the Department of Physical Education*

Department of Physical Education Faculty

(formerly Normal College of the American Gymnastic Union)

Angermeier, Lisa, Ph.D. (*Indiana University, 2000*), *Assistant Professor of Physical Education*

Bahamonde, Rafael E., Ph.D. (*Indiana University, 1994*), *Assistant Professor of Physical Education*

Barnett, Sandra, M.S. (*Indiana University, 1995*), *Lecturer in Physical Education*

Barrett, Sonja Sue, M.S. (*Purdue University, 1965*), *Associate Professor Emerita of Physical Education*

Bradley, Jay A., M.Ed. (*University of Cincinnati, 1979*), *Clinical Assistant Professor and Director, Professional Athletic Training Program and Associate Head Athletic Trainer*

Craigie, Paige, M.A., (*Butler University, 1983*), *Part-time Lecturer in Physical Education (Dance)*

Doecke, Johannah, Ph.D. (*Ohio State University, 1984*), *Part-time Lecturer in Physical Education*

Jones, Elizabeth Ann, P.E.D. (*Indiana University, 1983*), *Chair of the Department of Physical Education and Associate Professor of Physical Education*

Kellum, Paul Nicholas, Ed.D. (*Indiana University, 1986*), *Dean of the School of Physical Education, Indianapolis; Associate Dean of the School of Health, Physical Education, and Recreation, Bloomington; and Professor of Physical Education*

Kimball, Mary Maitland, M.A. (*Butler University, 1975*), *Professor Emerita of Physical Education and Director of Dance*

Lienert, Walter J., B.S. (*Indiana University, 1950*), *Assistant Professor Emeritus of Physical Education*

Mikesky, Alan E., Ph.D. (*University of Texas, 1987*), *Professor of Physical Education*

Schilling, Edmund C., M.S. (*Butler University, 1974*), *Associate Professor of Physical Education and Part-time Associate Professor of Education*

Sidhu, Hitwant, P.E.D. (*Indiana University, 1957*), *Professor Emeritus of Physical Education*

Stanton, Kathleen A., Ph.D. (*University of Virginia, 1995*), *Assistant Professor of Physical Education*

Teegarden, Karen W., M.S. (*Indiana University, 1971*), *Assistant Professor of Physical Education*

Udry, Eileen, Ph.D. (*University of North Carolina—Greensboro, 1995*), *Assistant Professor of Physical Education*

Urtel, Mark G., M.S. (*Ball State University, 1992*), *Lecturer in Physical Education*

Vessely, Jeffrey Stephen, Ed.D. (*Indiana University, 1986*), *Professor of Physical Education*

Department of Tourism, Conventions, and Event Management Faculty

Achana, Francis T., Ph.D. (*Purdue University, 2000*), *Assistant Professor of Tourism, Conventions, and Event Management*

Avgoustis, Sotiris H., Ph.D. (*Indiana State University, 1996*), *Assistant Professor of Restaurant, Hotel, Institutional, and Tourism Management*

Bennett, James D., M.S. (*Indiana University, 1996*), *Lecturer in Restaurant, Hotel, Institutional, and Tourism Management*

Brothers, Linda R., Ph.D. (*Purdue University, 1984*), *Chair of the Department of Tourism, Conventions, and Event Management and Associate Professor of Home Economics*

INDIANA UNIVERSITY SCHOOL OF PUBLIC AND ENVIRONMENTAL AFFAIRS

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Contents

435 School of Public and Environmental Affairs	455 Master of Public Affairs (M.P.A.)
435 Welcome from Dean Astrid E. Merget	455 Degree Requirements
435 Welcome from Associate Dean James L. Perry	455 Mid-Career Credit Option
435 SPEA Centers, Institutes, Programs, and Services	455 Fields of Concentration
436 Placement and Internship Office	455 Criminal Justice
436 SPEA Alumni Association	456 Environmental Management
436 Student Organizations	456 Nonprofit Management
	456 Policy Analysis
	457 Public Management
	457 Urban Management
436 Undergraduate Programs	457 Master of Health Administration (M.H.A.)
437 Admissions	
437 Intercampus Transfer	
437 Policies Governing the Undergraduate Program	458 Master of Planning (M.Pl.)
437 Other Policies Concerning Degree Requirements	459 Fields of Concentration
438 Honors and Accelerated Master's Programs	459 Environmental Planning
438 International Programs	459 Health Planning
438 Washington Leadership Program	459 Urban Development Planning
	460 Specialized Concentration in Planning and Public Policy
438 Bachelor of Science Degree Programs	
439 Bachelor of Science in Public Affairs	460 Joint Master's Degrees
440 Majors	460 Master of Health Administration—Doctor of Jurisprudence (M.H.A.—J.D.)
440 Management	460 Master of Health Administration—Master of Business Administration (M.H.A.—M.B.A.)
440 Civic Leadership	461 Master of Health Administration—Master of Science in Nursing (M.H.A.—M.S.N.)
440 Bachelor of Science in Public Health/Environmental Science and Health	461 Master of Public Affairs—Doctor of Jurisprudence (M.P.A.—J.D.)
440 Areas of Concentration	462 Master of Public Affairs—Master of Arts in Philanthropic Studies (M.P.A.—M.A.)
440 Environmental Science and Health	462 Master of Public Affairs—Master of Science in Nursing (M.P.A.—M.S.N.)
441 Bachelor of Science in Public Health/Health Administration	
441 Bachelor of Science in Health Services Management	463 Certificate Programs
442 Bachelor of Science in Criminal Justice	463 Hazardous Materials Management
444 Associate of Science Degree Programs	463 Health Systems Management
444 Associate of Science in Criminal Justice	464 Nonprofit Management
444 Associate of Science in Public Affairs	464 Public Management
445 Areas of Concentration	
445 Criminal Justice	464 Graduate Course Descriptions
445 Emergency Services Administration	471 IUPUI Administrative Officers
445 Environmental Affairs	471 IUPUI Academic Advisors
445 Public Administration	471 IUPUI Faculty
445 SPEA Minors	472 SPEA Board of Visitors
446 Public and Environmental Affairs	
446 Criminal Justice	
446 Environmental Science and Health	
446 Health Systems Administration	
446 Certificate Programs	
446 Effective Citizenship	
446 Environmental Studies	
447 Nonprofit Management	
447 Public Affairs	
447 Public Health	
447 Public Management	
448 American Humanics Certification	
448 Undergraduate Course Descriptions	
453 Graduate Programs	
453 Graduate Degrees, Programs and Concentrations	

School of Public and Environmental Affairs

The School of Public and Environmental Affairs (SPEA) is a professional school dedicated to applied interdisciplinary learning combining the study of public affairs and environmental sciences. The interests of the faculty and professional staff typically fall into one or more of the following areas:

- criminal justice
- environmental science and policy
- finance and economics
- health science and administration
- law
- policy and administration
- public safety
- urban affairs

The school's faculty, staff, and students work individually and jointly to solve problems that require SPEA's unique combination of in-depth knowledge in the natural, behavioral, social, and administrative sciences.

SPEA, because of its broad program base, offers scientific and technical assistance to Indiana communities from any of the eight IU campuses. The organizational design of the school reinforces a wide network of continuing relations with a large number of public agencies at all levels of government.

Welcome from Dean Astrid E. Merget

The Indiana University School of Public and Environmental Affairs has no small agenda. Because society's most critical concerns are connected to quality of life and sustainability of all life forms, our teaching, research, and service are distinguished by immediate relevancy and benefit in the public, private, and nonprofit sectors. Founded in 1972, the school has, from its very beginning, embraced a distinctive interdisciplinary approach to the pursuit of comprehensive solutions for society's most complex challenges in our classrooms, labs, and research centers.

Our work touches citizens around the world in multiple ways on any given day. On our campuses throughout the state of Indiana, our students and faculty address an assortment of issues that help define how well citizens of the world live, how well their institutions serve and sustain, and how well their environments are protected and enhanced.

We assess the water people drink and how their governments define and assist those most in need. Members of our faculty study the safety of air and highway travel and transport and how health care and food quality can be enhanced. In our research centers, our students learn how developing governments define principles of justice and address criminal behavior and social welfare. Today, we lead the country in helping groups and organizations in all

sectors learn inventive techniques to settle disputes and approach their environmental catastrophes. And internationally, our faculty and our students help new democracies determine how tax monies are best collected and utilized for society's betterment.

I am pleased with your interest in the School of Public and Environmental Affairs and hope that your investment of time here will ultimately serve you well as you prepare for a most meaningful and rewarding professional life.

With best wishes,

Astrid E. Merget
Dean

Welcome from Associate Dean James L. Perry

I am pleased to welcome you to the School of Public and Environmental Affairs, which is a multidisciplinary division of Indiana University. We are located in downtown Indianapolis on one of the most dynamic urban campuses in the nation. Our location fosters strong relationships with public, private, and nonprofit organizations in the metro area. This allows us to offer unique opportunities to our students, which blend academic course work with practical experience.

Our faculty has earned national distinction for innovative programs in public affairs, urban affairs, environmental science, planning, criminal justice, and health administration. It is my pleasure to announce that our graduate concentration in nonprofit management is consistently ranked among the top ten in the nation.

In addition to our academic programs, SPEA is affiliated with a variety of nationally recognized research centers. Students and faculty are developing cutting-edge research in such areas as health policy and health services, urban policy and the environment, and the intersection of government and the nonprofit sector.

We invite you to join the legacy of SPEA and challenge you to make a world of difference in your community!

James L. Perry
Associate Dean

SPEA Centers, Institutes, Programs, and Services

The School of Public and Environmental Affairs encompasses public service activities that complement innovative academic programs. The school provides a wide variety of services to an equally broad range of federal, state, and local agencies.

The Bowen Research Center, based in Indianapolis, is the result of a joint effort of the Department of Family Medicine, School of Medicine and the School of Public and Environmental Affairs. Named for Governor Otis Bowen, M.D., the former director of the U.S. Department of Health and Human

Services, the Bowen Research Center is the university's leader in health policy and health services research. The center's multimillion-dollar research program provides important research opportunities for the faculty, staff, and students. The center's research focuses on primary health care service among rural and underserved populations and promotes health, disease prevention, and reduction of the untimely loss of life through research on lifestyle changes. The center also develops methods to control health care costs and improve the effectiveness, efficiency, humaneness, and appropriateness of health services. The Bowen Research Center can be reached at (317) 278-0312 or www.bowenresearchcenter.iupui.edu.

The Executive Education Program is one of the most prestigious leadership programs in the nation. Offered through the School of Public and Environmental Affairs, the Executive Education Program works with the government, nonprofit agencies and the private sector to prepare leaders and managers to meet today's challenges and anticipate tomorrow's opportunities.

The Executive Education Program offers graduate-level programs at four sites nationally: Washington, DC; Seattle, Washington; Indianapolis, Indiana for the United States Navy; and Louisville, Kentucky for the United States Army Corps of Engineers. Graduate programs include the Master of Public Affairs (M.P.A.), the Public Management Certificate and the Environmental Management Certificate.

The Executive Education Program has formed a partnership with the American Association of State Highway and Transportation Officials (AASHTO) which also meets in Indianapolis. Together, they have created two institutes to challenge and educate transportation managers and leaders. The National Transportation Leadership Institute and the Graduate Leadership/Management Institute are two of the most influential programs for transportation management.

The Executive Education Program's partnership with the Indiana Health and Hospital Association (IHHA) created a 10-course management institute for health care officials in Indiana to help them lead their organizations through the continually changing health care industry.

SPEA's Executive Education Program also offers customized leadership and management programs for local and national clients.

The Institute for the Study of Government and the Nonprofit Sector is the result of a joint initiative of Indiana University's Center on Philanthropy, the Center for Urban Policy and the Environment, and the School of Public and Environmental Affairs. The purpose of the institute is to support intellectual exchange between faculty members, stimulate extramural support for faculty research, and engage students and returning practitioners in a discussion of issues involving the intersection of government and the nonprofit sector. The mission of the institute is to create and disseminate knowledge about the complex linkages between government and the nonprofit sector and to develop specialized faculty expertise. The institute strives to be the preeminent national and

international resource on matters related to government and the nonprofit sector. The institute can be reached on the Web at www.isgns.spea.iupui.edu.

The Center for Urban Policy and the Environment brings analyses and decision facilitation competencies to complex societal problems, especially in central Indiana. Foundations, governments, nonprofit organizations, and businesses have supported center projects. Affiliated faculty from Indiana University–Purdue University Indianapolis and other universities, professional staff of the center, and graduate assistants commonly forms teams for projects. Clients who have engaged the center in recent projects include: the Central Indiana Corporate Partnership, the State of Indiana, the Indianapolis–Marion County Public Library, the City of Indianapolis, the Indianapolis Neighborhood Housing Partnership, and the Catholic Diocese of Cleveland. The center is evaluating implementation of the charitable choice provisions of the welfare reform act with an award from the Ford Foundation. The Lilly Endowment has provided an award of general support to the center that is funding extensive analyses of investments by households, businesses, governments and nonprofits in central Indiana.

Center for Urban Policy and the Environment
School of Public and Environmental Affairs
342 North Senate Avenue, 3rd Floor
Indianapolis, IN 46204-1708

Contact: John J. Kirlin, Director, (317) 261-3000;
(317) 261-3050 (fax); jkirlin@iupui.edu

Web: www.urbancenter.iupui.edu

Placement and Internship Office

SPEA's students utilize IUPUI's Career Center and the expertise of SPEA's career representative in making the transition from the university setting to the working world. Workshops, individual counseling, alumni mentoring, and an extensive library are provided. Other services include bulletins, directories, and networking interviews with on-campus recruiters, and automated resume preparation and distribution to employers.

SPEA students also may make internship arrangements through faculty and the SPEA program directors.

In recent years, students have held internships in the following types of organizations: county government, state government, federal government, police departments, environmental consulting firms, hospitals, assisted living facilities, nursing homes, law firms, nonprofit agencies, private corporations, pharmaceutical firms, insurance companies and more.

Internship programs are designed for maximum flexibility so that many valid learning experiences can qualify as internships. Work can be full- or part-time, and paid or unpaid; however, prior approval by the student's faculty advisor is always required. After obtaining approval for an internship, a student may register for 1-6 credit hours, earning one credit for every 80 hours of work, with a minimum of 120 hours of work. All credit for an internship is awarded on an S/F (Satisfactory/Fail) basis. Credit is not granted for

work experience obtained prior to approval of an internship and enrollment in the appropriate internship class.

Students on the IUPUI campus seeking career-planning assistance should contact:

Career and Employment Services
Business/SPEA 2010
(317) 274-2556
Web: www.iupui.edu/~career

Career-planning assistance also is available on other campuses. For information, contact:

Placement and Internship Office
SPEA 200
Bloomington Campus
(812) 855-9639
Web: www.indiana.edu/~speacare

SPEA Alumni Association

SPEA maintains contact with alumni through the SPEA Alumni Association, a constituent society within the parent Indiana University Alumni Association. The SPEA Alumni Association publishes the school's newsletter, *Alumni Update*, mailed two times a year to more than 18,000 SPEA alumni located in all 50 states and 50 countries. Through this newsletter, alumni, faculty, and students are able to maintain contact. The Alumni Association raises funds for student scholarships with a summer golf outing in Indianapolis and with specialized efforts for specific programs. It sponsors the publication of an alumni directory and sponsors alumni events in several major cities. The SPEA Alumni Association is governed by an elected board of directors, which meets biannually.

Student Organizations

Alpha Phi Sigma

Alpha Phi Sigma is the national criminal justice honor society, with chapters established on the Northwest, Fort Wayne, South Bend, Kokomo, and Indianapolis campuses of Indiana University. The society recognizes scholastic excellence by students in the field of criminal justice. It was founded in 1942 and was admitted to the Association of College Honor Societies in 1980. Membership of graduate students is limited to those who have a bachelor's degree in criminal justice or who are currently doing graduate work in this field. A minimum grade point average of 3.4 is required of graduate students seeking membership in Alpha Phi Sigma.

Indiana Health Student Association

The purpose of the Indiana Health Student Association is to: stimulate professional career development and leadership of its members; provide the opportunity to assemble with and enjoy the fellowship of students and faculty whose professional interests are in public and environmental health; encourage students to become active in causes and projects which will protect the environment and provide better health care for our society; and keep members informed of recent trends in health-related areas.

Pi Alpha Alpha

Pi Alpha Alpha is the national honorary society for schools of public affairs and administration. The society acknowledges outstanding scholarship and

contributions to these fields. It was founded in 1972 by the National Association of Schools of Public Affairs and Administration (NASPAA) to honor those whose performance in public affairs has been distinguished. The Indiana chapter of Pi Alpha Alpha is a charter chapter. Membership in Pi Alpha Alpha may be compared to membership in Phi Beta Kappa for liberal arts graduates. A person evaluating credentials in the various fields of public service should recognize the professional quality such a membership represents.

Undergraduate students are eligible for Pi Alpha Alpha membership when they are in the top 10 percent of their graduating class with a minimum grade point average of 3.50 in at least 15 credit hours of SPEA courses, when they are in the last semester of the junior year or in the senior year, and when they have earned a grade point average of at least 3.00 in all course work.

Alumni are eligible for membership if they meet all the requirements of student membership, even if they graduated before induction by the Indiana chapter.

Honorary membership is available to any person who has achieved distinction in public administration and who has the distinguished qualities that Pi Alpha Alpha fosters.

Phi Alpha Delta Law Fraternity, Prelaw Chapter

Phi Alpha Delta Law Fraternity, International is a professional service organization composed of prelaw students, law students, legal educators, attorneys, judges and government officials. Phi Alpha Delta was founded in 1902 for the purpose of promoting professional competency and achievement within the legal profession. It is also the first law fraternity to admit women. Phi Alpha Delta (PAD) is the world's largest law fraternity with almost 200 prelaw chapters, 179 law school chapters and 94 alumni chapters in the United States, Canada, Puerto Rico and Mexico.

Undergraduate Programs

The School of Public and Environmental Affairs on the Indianapolis campus offers a wide range of undergraduate programs. The following is a list of bachelor degrees offered through SPEA:

- Bachelor of Science in Public Affairs with majors in:
 - Management
 - Civic Leadership
- Bachelor of Science in Public Health with majors in:
 - Health Administration
 - Environmental Science and Health
- Bachelor of Science in Health Services Management (associate degree required)
- Bachelor of Science in Criminal Justice

Minors are available in the following areas:

- Public and Environmental Affairs
- Criminal Justice
- Environmental Science and Health
- Health Systems Administration

In addition, SPEA offers a number of undergraduate certificates:

- Effective Citizenship
- Environmental Studies
- Nonprofit Management
- Public Affairs
- Public Health
- Public Management
- American Humanics

General information concerning these programs can be obtained by visiting our Web site at www.spea.iupui.edu or from the SPEA Student Services Office:

Student Services Office
School of Public and Environmental Affairs
Business/SPEA Building 3027
Indiana University–Purdue University Indianapolis
801 W. Michigan Street
Indianapolis, IN 46202-5152
(317) 274-4656
(877) 292-9321: toll free
e-mail: infospea@iupui.edu
Web: www.spea.iupui.edu

Admissions

SPEA has a special program to admit freshman students simultaneously to SPEA and to the University College. To be eligible for this dual admission, applicants must meet the general university and campus requirements for admission, have a minimum combined Scholastic Aptitude Test (SAT) (or equivalent) test score of 990, and be in the top quartile in their high school ranking.

Students who do not qualify for dual admission at Indianapolis or choose not to apply for freshman-level entry may be admitted to the School of Public and Environmental Affairs after they have completed 12 credit hours with a minimum cumulative grade point average of 2.00.

Inter-campus Transfer

Students admitted to the School of Public and Environmental Affairs at any campus of Indiana University may transfer permanently to SPEA on another campus, provided they meet the requirements for admission and good academic standing at the desired campus. Students wanting a temporary inter-campus transfer need only meet the good academic standing requirements.

Policies Governing the Undergraduate Program

The following academic policies of the School of Public and Environmental Affairs are applicable to all SPEA undergraduate programs regardless of the campus where they are offered. Additional policies at individual campuses may also apply to SPEA students.

Grading Policies SPEA follows the official grading system of Indiana University, described in the introductory section of the bulletin.

Good Academic Standing Students are in good academic standing when their semester and their cumulative grade point averages are 2.00 or above, and their grade point average in all courses counting in the SPEA core and major/concentration requirements is at least 2.30. Students must be in good academic standing to graduate.

Acceptance of Grade Replacement SPEA students who have retaken a course (must be same department and course number) may request to have only the last grade computed in their grade point average. Courses must have been taken the fall semester of 1996 or later, and can only have been taken on the IUPUI campus.

Forgiveness Policy This policy applies to former IU students pursuing a first undergraduate degree who have been away from the IU system and have not attended any other college or university, including any campus of IU, for the last five years. This policy first became available to students returning to SPEA in the fall of 1996. Students must apply for forgiveness upon application for admission to a degree-granting unit. If the student has not yet been admitted to a degree-granting unit, the student should submit a notification of intent to petition for academic forgiveness as part of the academic advising process. If the petition is approved, the student starts with a fresh cumulative grade point index, after which all the rules of academic probation and dismissal (for SPEA) will apply. The school will evaluate the student's transcript, and all courses taken previously will remain on the permanent record. Only credit hours for courses with grades C or above, or P and S may be counted toward degree completion. After approval, the student must complete a minimum of 32 credit hours on the IUPUI campus after his or her return in order to meet the graduation residency requirement.

Probation Students will be placed on academic probation if their cumulative or semester grade point average is below 2.00 or their SPEA core and major/concentration GPA falls below 2.30. In order for the core and major/concentration GPA to be considered, students must have completed 12 or more credit hours in the core and major/concentration.

Critical Probation After one semester on probation, students who fail to return to good academic standing will be placed on critical probation. At the discretion of the undergraduate program director, these students could be dismissed. If a student is given the opportunity to enroll under critical probation, SPEA will establish strict conditions that must be met before that student will be allowed to register for future classes.

Dismissal Students can be dismissed if they fail to return to good academic standing after one semester on critical probation. Students also may be dismissed if, in the opinion of the undergraduate program

director, they are not making satisfactory progress toward their degrees.

Re-admission Dismissed students must petition their campus undergraduate program director for re-admission. Dismissed students whose petitions are denied will not be allowed to register.

Grade Appeals Students generally have one year to appeal a grade given by a SPEA faculty member. Resolution of the issue with the class instructor must be attempted before submitting a written appeal to the appropriate program director.

Student Rights and Responsibilities These provide for due process in the event of disciplinary or other actions and are explained in detail in the student handbook, *Code of Student Rights, Responsibilities, and Conduct*. In accordance with federal law, student records are confidential and are available to other persons only under specific conditions as outlined in university regulations. Students are responsible for planning their own academic programs and for meeting the requirements for their degree or certificate programs. Faculty and academic advisors are obligated only to assist students in meeting this responsibility.

Academic Integrity This is a basic principle requiring that students take credit only for ideas and efforts that are their own. Academic dishonesty violates that principle and undermines the bonds of trust and cooperation among members of the university community. Penalties and procedures that are applicable when academic misconduct or dishonesty occurs are provided in the *Code of Student Rights, Responsibilities, and Conduct*.

Sex Offenders Screening Policy for Students/Applicants Indianapolis applicants should be aware that criminal convictions may result in ineligibility for participation in certain courses/activities within the School of Public and Environmental Affairs. Questions regarding school policy on such matters should be addressed to the appropriate program director.

Other Policies Concerning Degree Requirements

Bulletin Policy Students are expected to complete the requirements for their undergraduate degree within 10 years of admission to the School of Public and Environmental Affairs. Students are allowed to continue beyond this time period only at the discretion of the undergraduate program director or campus director. If a student has not taken classes for three years or more, that student must satisfy program requirements of the School of Public and Environmental Affairs in effect at the time of re-activation. Requests for deviation from requirements listed in the bulletin must be approved in writing by the program director, whose decision is final.

Hours Requirements Students must successfully complete a minimum of 120 credit hours for most Bachelor of Science degrees and a minimum of 60 credit hours for Associate of Science degrees. The campus at which a student completes the plurality of required course work will award the degree, provided that campus is authorized to grant the degree/major/concentration and that the student has been admitted to that campus. Students may transfer no more than 90 credit hours (60 credits from a junior college) toward a Bachelor of Science degree or 30 credit hours toward an Associate of Science degree. Class standing, based on total credit hours that count toward minimum degree requirements, is as follows: senior, 86 or more; junior, 56-85; sophomore, 26-55; freshman, fewer than 26.

Grade Point Average Requirement A minimum cumulative GPA of 2.00 is required for the B.S. and A.S. degrees. In addition, a SPEA core and major/concentration GPA of 2.30 must be maintained in order to graduate. For students seeking certificates or minors from SPEA, the minimum GPA requirement is 2.00 in all applicable course work.

Double-Counting Generally, courses taken to meet a specific degree requirement cannot be double-counted (i.e., used to satisfy any other degree requirement). Two exceptions to this rule are: Environmental Management majors may double-count SPEA E272 Introduction to Environmental Sciences as a core and major/concentration requirement, and SPEA students earning a SPEA minor may double-count two minor courses.

Application for Degree All students must fill out an application for degree at the SPEA records office on their campus. This application is usually filed six months before the expected graduation date.

Degrees Awarded with Distinction SPEA recognizes outstanding performance by awarding bachelor's and associate degrees with three levels of distinction to students who rank within the upper 10 percent of their SPEA graduating class and have completed a minimum of 60 hours at Indiana University for a B.S. (30 hours for an A.S.). The levels of distinction are as follows: highest, 3.90 and above; high, 3.70 through 3.89; distinction, 3.50 through 3.69.

Requirements for a Second Bachelor's Degree Students must petition for approval to work toward a second bachelor's degree. If permission is granted, students are required to take 30 credit hours beyond the credits used for the first bachelor's degree and satisfy all the requirements for the second degree. Generally, SPEA encourages students to work toward a graduate degree rather than a second bachelor's degree.

Available Options A student in good academic standing may choose to take a maximum of eight elective courses (two per academic year) **pass/fail** for a B.S. degree or two courses for an A.S. degree. Deadlines for exercising this option are published in the *Schedule of Classes* and are strictly enforced.

With prior approval, a student may take three courses totaling no more than 10 credit hours by

correspondence through the IU Division of Extended Studies, Independent Study Program. Under no circumstances may a student satisfy a core or major/concentration requirement by correspondence.

With SPEA faculty approval, a student in good standing may earn a maximum of 15 credit hours of elective credit through the SPEA **internship** program. The SPEA internship program is described in more detail elsewhere in this bulletin.

SPEA students may choose to pursue a **minor** from another school or department or within SPEA in an area other than their degree or major/concentration. Students interested in a minor should contact that department for additional information.

Honors and Accelerated Master's Programs

Sophomores and juniors who have completed at least 45 credit hours with a cumulative grade point average of 3.50 or higher may apply for the Honors Program. The primary requirements are that a student maintain the 3.50 GPA, successfully complete designated honors courses, and write a senior thesis. Students may propose a unique course of study in consultation with the SPEA honors advisor.

The Accelerated Master's Program (A.M.P.) is a competitive program for outstanding SPEA students. Students may apply to the Master of Public Affairs (M.P.A.), the Master of Health Administration (M.H.A.), or the Master of Planning (M.Pl.) early in their junior year.

Participation in this program allows the student to fulfill some graduate program requirements during the senior year. Graduate courses count for both graduate and undergraduate degree requirements. Before starting the graduate program, students must have satisfied all general education and core requirements with a minimum of 96 credit hours completed toward their bachelor's degree (90 credit hours for students seeking the M.H.A. degree). For additional information, students should contact the appropriate program director.

International Programs

SPEA offers several opportunities to study abroad for credit:

- the Rotterdam Program in the Netherlands (spring and fall)
- the Parliamentary Internship Program in Canberra, Australia (year-round).

The Rotterdam program is a one-semester program that allows students to take 15 credit hours in the general area of public affairs. The Parliamentary internship is available with or without course work and is offered each semester and during the summer (the Australian winter). In addition, IU offers many other officially approved study abroad programs that can, with the authorization of an advisor, count for SPEA credit.

All these programs are taught in English, and the IU credit obtained costs the same as it would on campus. Financial aid obtained is normally applied to these overseas experiences. Experience has taught us that studying abroad does not adversely affect a student's GPA, increase the cost of study, or delay graduation,

even though many people seem to think one or all of these things will happen.

Our purpose in creating these study abroad opportunities is to provide students with a unique chance to broaden their horizons, help them prepare themselves for a world that is becoming much more international and global, and allow them to challenge themselves by facing something new. Of course, there are opportunities to travel and socialize as well as study—and that is all part of the educational experience. More than 200 SPEA students have benefited from this opportunity. There are many programs from which to choose, and students are advised to make use of the overseas study resource center on the third floor of Franklin Hall. For further information, consult SPEA's International Program Center in SPEA 339 on the Bloomington campus.

Washington Leadership Program

The School of Public and Environmental Affairs offers the Washington Leadership Program each fall and spring semester in Washington, D.C. This program consists of two senior-level seminars (each worth 3 credit hours) and an internship (worth 5 or 6 credit hours). Students complete internships by working four days per week in an assigned congressional office, public interest group, federal agency, or nonprofit organization.

Students reside and attend classes in Washington, D.C. Tuition is based on the regular fees for Indiana University, plus any special program charges. Students in the program remain eligible for any scholarships or financial aid they would normally receive as Indiana University students. Interested students should contact the SPEA undergraduate advisor or program director.

Bachelor of Science Degree Programs

The School of Public and Environmental Affairs recognizes the complex problems facing our society such as global warming, hazardous waste, escalating health care costs, and increasing crime rates. Through our programs, students develop the critical thinking and problem solving skills necessary for offering solutions to these issues.

Students pursuing the Bachelor of Science in Public Affairs may major in either management or civic leadership. The B.S.P.A. prepares graduates for careers in the public, private, or nonprofit sector. Many students also choose to continue their education in law, planning, public affairs, environmental science, or business administration.

The Bachelor of Science in Public Health allows students to major in either health administration or environmental science and health. Graduates with a B.S.P.H. degree may work in either the public or private sector in areas such as environmental health, health administration, epidemiology, or health policy and planning.

The Bachelor of Science in Health Systems Management is a management preparation program for experienced health and nursing specialists who hold an associate degree. The program is designed for

health care professionals who wish to become managers within their specialty areas. Students should be able to complete all requirements without interrupting employment.

The Bachelor of Science in Criminal Justice gives students a sophisticated understanding of the operations of the criminal justice system. Students learn to deal with problems of crime in a manner consistent with democratic traditions of law, justice and social welfare. Graduates are well prepared to work in the criminal justice system, as well as other public and private organizations. Alumni work in a variety of positions throughout the government system including corrections, probation, policing, and state agencies. Many graduates also work for private firms in security and investigative roles.

Bachelor of Science in Public Affairs

The Bachelor of Science in Public Affairs requires 120 credit hours.

DEGREE REQUIREMENTS

The SPEA curriculum is divided into three categories—general education, electives, and major area.

General Education

Communications

Three courses for a minimum of 9 credit hours.

The following writing course:

ENG W131 Elementary Composition (3 cr.) **or** equivalent campus option (must earn a C or better)

One of the following:

BUS X204 Business Communications (3 cr.)

ENG W231 Professional Writing Skills (3 cr.)

The following speech course:

COMM R110 Fundamentals of Speech Communication (3 cr.) **or** equivalent campus option

Social Sciences and Humanities

Six courses for a minimum of 18 credit hours.

The following three courses:

ECON E201 Introduction to Microeconomics (3 cr.)

ECON E202 Introduction to Macroeconomics (3 cr.)

POLS Y103 Introduction to American Politics (3 cr.)

One of the following courses:

ANTH A104 Culture and Society (3 cr.)

CLAS C205 Classical Mythology (3 cr.)

FLAC F200 World Cultures through Literature (3 cr.)

GEOG G110 Introduction to Human Geography (3 cr.)

HIST H105 American History I (3 cr.)

HIST H106 American History II (3 cr.)

HIST H108 Perspectives on the World to 1800 (3 cr.)

HIST H114 History of Western Civilization II (3 cr.)

REL R133 Introduction to Religions (3 cr.)

REL R212 Comparative Religion (3 cr.)

Two courses from the following Social Sciences and Humanities lists:

Social Sciences

AFRO A150 Survey of the Culture of Black Americans (3 cr.)

ANTH A104 Culture and Society (3 cr.)

COMM C180 Introduction to Interpersonal Communication (3 cr.)

ENG G104 Language Awareness (3 cr.)

FOLK F101 Introduction to Folklore (3 cr.)

GEOG G110 Introduction to Human Geography (3 cr.)

GEOG G130 World Geography (3 cr.)

HIST H117 Introduction to Historical Studies (3 cr.)

POLS Y101 Principles of Political Science (3 cr.)

POLS Y219 Introduction to International Relations (3 cr.)

PSY B104 Introduction to Psychology as a Social Science (3 cr.)

PSY B310 Life Span Development (P) (3 cr.)

SOC R100 Introduction to Sociology (3 cr.)

SOC R121 Social Problems (3 cr.)

SPEA J101 The American Criminal Justice System (3 cr.)

WOST W105 Introduction to Women's Studies (3 cr.)

Humanities

CLAS C205 Classical Mythology (3 cr.)

CMLT C190 Introduction to Film (3 cr.)

ENG L105 Appreciation of Literature (3 cr.)

FLAC F200 World Cultures through Literature (3 cr.)

FOLK F101 Introduction to Folklore (3 cr.)

HER H100 Art Appreciation (3 cr.)

HER H101 History of Art I (3 cr.)

HER H102 History of Art II (3 cr.)

HIST H105 American History I (3 cr.)

HIST H106 American History II (3 cr.)

HIST H108 Perspectives on the World to 1800 (3 cr.)

HIST H113 History of Western Civilization I (3 cr.)

HIST H217 The Nature of History (3 cr.)

Courses may be substituted with permission of faculty advisor.

Natural Sciences

Three natural science courses of more than one credit each are required. One of the courses must have an associated laboratory of one or two credits. The courses and laboratory must total a minimum of eight credit hours.

Courses may be chosen from the following list:

ANTH A103 Human Origins and Prehistory (3 cr.)

AST A100 The Solar System (3 cr.)

AST A105 Stars and Galaxies (3 cr.)

BIOL K101 Concepts of Biology I — Plants (5 cr.)

BIOL K103 Concepts of Biology II — Animals (5 cr.)

BIOL N100 Contemporary Biology (3 cr.)

BIOL N107 Introduction to Zoology (4 cr.)

BIOL N200 The Biology of Women (3 cr.)

BIOL N212 Human Biology (2 cr.)

BIOL N213 Human Biology Laboratory (1 cr.)

BIOL N214 Human Biology (2 cr.)

BIOL N215 Human Biology Laboratory (1 cr.)

BIOL N217 Human Physiology (5 cr.)

BIOL N251 Introduction to Microbiology (3 cr.)

BIOL N322 Introductory Principles of Genetics (3 cr.)

CHEM C100 World of Chemistry (3 cr.)

CHEM C101 Elementary Chemistry I (5 cr.)

CHEM C102 Elementary Chemistry II (5 cr.)

CHEM C105 Principles of Chemistry I (3 cr.)

CHEM C106 Principles of Chemistry II (3 cr.)

GEOG G107 Physical Systems of the Environment (3 cr.)

GEOG G108 Physical Geography Laboratory (2 cr.)

GEOG G303 Weather and Climate (3 cr.) /Topical Seminar in Urban and Regional Systems

GEOG G307 Biogeography: Distribution of Life (3 cr.)

GEOG/GEOG G185 Global Environmental Change (3 cr.)

GEOL G107 Environmental Geology (3 cr.)

GEOL G109 Fundamentals of Earth History (3 cr.)

GEOL G110 Physical Geology (3 cr.)

GEOL G115 Introduction to Oceanography (3 cr.)

GEOL G117 Environmental Geology Laboratory (1 cr.)

GEOL G119 Fundamentals of Earth History Laboratory (1 cr.)

GEOL G120 Physical Geology Laboratory (1 cr.) **or** GEOL G206 Advanced Physical Geology Laboratory (2 cr.)

GEOL G132 Environmental Problems (3 cr.)

GEOL G180 Dinosaurs (3 cr.)

PHYS 100 Physics in the Modern World (5 cr.)

PHYS 152 Mechanics (4 cr.)

PHYS 200 Our Physical Environment (3 cr.)

PHYS 218 General Physics I (4 cr.)

PHYS 219 General Physics II (4 cr.)

PHYS 251 Heat, Electricity, and Optics (5 cr.)

PHYS P201 General Physics I (5 cr.)

PHYS P202 General Physics II (5 cr.)

PSY B105 Psychology as a Biological Science (3 cr.)

Quantitative Methods

Three courses for a minimum of 9 credit hours.

One of the following computer courses:

SPEA V261 Computers in Public Affairs (3 cr.)

BUS K201 The Computer in Business (3 cr.)

CPT 115 Computer Info Systems Fundamentals (3 cr.) **and**

CPT 140 Programming Constructs Lab (3 cr.)

CSCI N201 Programming Concepts (3 cr.)

CSCI N207 Data Analysis Using Spreadsheets (3 cr.)

One of the following mathematics courses:

MATH M118 Finite Mathematics (3 cr.)

MATH M119 Brief Survey of Calculus I (3 cr.)

MATH 163 Integrated Calculus and Analytic Geometry I (5 cr.)

MATH 164 Integrated Calculus and Analytic Geometry II (5 cr.)

One of the following statistics courses:

SPEA/MATH/PSY K300 Statistical Techniques (3 cr.)

ECON E270 Introduction to Statistical Theory in Economics and Business (3 cr.)

PSY B305 Statistics (3 cr.)

SOC R359 Introduction to Sociological Statistics I (3 cr.)

STAT 301 Elementary Statistical Methods I (3 cr.)

General Electives

Additional courses beyond the general education and major requirements are needed to complete the minimum 120 hours required for the degree.

Majors

There are two majors offered on the Indianapolis campus: Management and Civic Leadership.

Management Major

Fifteen courses.

The following course:

SPEA V170 Introduction to Public Affairs (3 cr.)

Two of the following courses:

SPEA E272 Introduction to Environmental Sciences (3 cr.)

SPEA V221 Nonprofit and Voluntary Sector (3 cr.)

SPEA V264 Urban Structure and Policy (3 cr.)

One of the following courses:

SPEA V263 Public Management (3 cr.)

SPEA V362 Nonprofit Management and Leadership (3 cr.)

Ten of the following courses:

SPEA V263 Public Management (3 cr.)

SPEA V346 Introduction to Government Accounting and Financial Reporting (3 cr.) **or**

SPEA V356 Introduction to Nonprofit Accounting and Reporting (3 cr.)

SPEA V348 Management Science (3 cr.)

SPEA V361 Financial Management (3 cr.)

SPEA V362 Nonprofit Management and Leadership (3 cr.)

SPEA V366 Managing Behavior in Public Organizations (3 cr.)

SPEA V368 Managing Government Operations (3 cr.)

SPEA V369 Managing Information Technology (3 cr.)

SPEA V370 Research Methods and Statistical Modeling (3 cr.)

SPEA V372 Government Finance and Budgets (3 cr.)

SPEA V373 Human Resources Management in the Public Sector (3 cr.)

SPEA V376 Law and Public Policy (3 cr.)

SPEA V432 Labor Relations in the Public Sector (3 cr.)

SPEA V458 Fund Development for Nonprofit Organizations (3 cr.)

The following capstone course:

SPEA V473 Management Applications Seminar (3 cr.)

Civic Leadership Major

Fifteen courses.

The following five courses:

SPEA V170 Introduction to Public Affairs (3 cr.)

SPEA V221 Nonprofit and Voluntary Sector (3 cr.) **or**
POL S Y378 Civil Society and Public Policy (3 cr.)

SPEA V264 Urban Structure and Policy (3 cr.)

SPEA V372 Government Finance and Budgets (3 cr.)

SPEA V376 Law and Public Policy (3 cr.)

Four of the following courses:

SPEA V260 Topics in Public Affairs: Political Organization (3 cr.)

SPEA V260 Topics in Public Affairs: Political Action (3 cr.)

SPEA V263 Public Management (3 cr.) **or**

SPEA V362 Nonprofit Management and Leadership (3 cr.)

SPEA V366 Managing Behavior in Public Organizations (3 cr.)

SPEA V370 Research Methods and Statistical Modeling (3 cr.)

SPEA V450 Contemporary Issues in Public Affairs: Community and the Constitution (3 cr.)

SPEA V450 Contemporary Issues in Public Affairs: The Media and Public Affairs (3 cr.)

SPEA V472 Policy Processes in the United States (3 cr.)

POL S Y378 Civil Society and Public Policy (3 cr.)

POL S Y380 Civil Society in Comparative **or**
other 300-400 level Political Science courses
chosen in consultation with a faculty advisor

Four courses, totaling at least 12 credits, chosen with the advice of a faculty advisor in an Emphasis Area, are required. Students are encouraged to design their own Emphasis Areas. Some suggestions include: Urban Problems and Solutions, Environmental Studies, Criminal Justice, Health Policy, Public Management, Nonprofit Management, Prelaw.

The following capstone course:

SPEA V449 Policy Senior Seminar (3 cr.)

The following course:

SPEA V380 Internship in Public and Environmental Affairs (at least 3 cr.)

Bachelor of Science in Public Health/Environmental Science and Health

DEGREE REQUIREMENTS

Students must satisfy requirements in four main areas: general education, electives, a public health core, and one of the two concentrations.

Communications

Four courses for a minimum of 12 credit hours.

Each of the following courses:

ENG W131 Elementary Composition I (3 cr.)

ENG W231 Professional Writing Skills (3 cr.) **OR**
BUS X204 Business Communications (3 cr.) **OR**
TCM 220 Technical Report Writing (3 cr.)

COMM R110 Fundamentals of Speech Communication (3 cr.)

COMM C223 Business and Professional Communication (3 cr.)

Social Sciences and Humanities

Four courses for a minimum of 12 credit hours.

EACH of the following **three** courses:

ECON E201 Introduction to Microeconomics (3 cr.)
P: Sophomore Standing

ECON E202 Introduction to Macroeconomics (3 cr.)
P: Sophomore Standing

ONE approved course from the following subject areas:

Anthropology
Geography
Journalism
Linguistics
Philosophy
Political Science
Psychology
Sociology

ONE approved course from the following subject areas:

Afro-American Studies
Classical Studies
Communications and Theater
Comparative Literature
English
Fine Arts
Folklore
Foreign Languages and Literatures
History
Music
Philosophy
Religious Studies
Speech
Theatre and Drama

Science

Five courses for a total of 21 credit hours.

EACH of the following courses:

BIOL N100 Contemporary Biology (3 cr.)

BIOL N251 Introduction to Microbiology (3 cr.)

PHYS P201 General Physics I (5 cr.) P: MATH 151 or equivalent

TWO of the following courses:

CHEM C101/C121 Elementary Chemistry I with Lab (5 cr.) **and**

CHEM C110/C115 Elementary Chemistry II with Lab (5 cr.)

OR

CHEM C105/C125 Principles of Chemistry I with Lab (5 cr.) **and**

CHEM C106/C126 Principles of Chemistry II with Lab (5 cr.)

Quantitative Methods

Five courses for a minimum of 14 credit hours.

TWO computer courses:

SPEA V261 Computers in Public Affairs (3 cr.)

SPEA V369 Managing Information Technology (3 cr.)
or SPEA V450/E400 Geographic Information Systems (2 cr.)

TWO of the following mathematics courses:

MATH 153 Algebra and Trigonometry I (3 cr.) **and**
MATH 154 Algebra and Trigonometry II (3 cr.)

OR

MATH 151 Algebra and Trigonometry I (5 cr.) **and**
MATH 163 Integrated Calculus and Analytic Geometry I (5 cr.)

ONE statistics course:

SPEA K300 Statistical Techniques (3 cr.) **P: M110 or M111. R: M118 or approved course**

ENVIRONMENTAL SCIENCE AND HEALTH MAJOR (16 courses) – 45 credit hours

Policy and Management

EACH of the following courses:

Three courses for a total of 9 credit hours.

SPEA V170 Introduction to Public Affairs (3 cr.) **or**
SPEA E162 Environment and People (3 cr.)

SPEA H416 Environmental Health Policy (3 cr.)

ONE of the following courses:

SPEA H320 Health Systems Administration (3 cr.)

SPEA V263 Public Management (3 cr.)

SPEA V366 Managing Behavior in Public Organizations (3 cr.)

Foundation and Methods

Five courses totaling 15 credit hours.

EACH of the following courses:

SPEA H316 Environmental Health (3 cr.)

SPEA H322 Epidemiology (3 cr.)

SPEA E326 Mathematical Methods in Environmental Science (3 cr.) P: math, statistics, and computer course

SPEA H459 Environmental Science and Health Data Analysis (3 cr.)

SPEA H460 Techniques in Environmental Science and Health (3 cr.) P: H316

Applications in Environmental Science and Health

Six courses totaling 18 credit hours.

EACH of the following courses:

SPEA E410 Introduction to Environmental Toxicology (3 cr.)

SPEA E431 Water Supply and Wastewater Treatment I (3 cr.)

SPEA E451 Air Pollution and Control (3 cr.)

SPEA E452 Solid and Hazardous Waste Management (3 cr.)

SPEA H428 Food Science and Sanitation (3 cr.)

SPEA H433 Industrial Hygiene and Radiological Health (3 cr.)

Environmental Science and Health Experience

Two courses totaling a minimum of 3 credit hours.

EACH of the following courses:

SPEA H367 Environmental Science and Health Practicum (2 cr.)

SPEA V380 Internship in Public and Environmental Affairs (1-6 cr.) **or**

SPEA H466 Public Health Field Experience (1 cr.) P: H465

Bachelor of Science in Public Health/Health Administration

DEGREE REQUIREMENTS

Students must satisfy requirements in four main areas: general education, electives, a public health core, and one of the two concentrations.

Communications

Four courses for a minimum of 12 credit hours.

Each of the following courses:

ENG W131 Elementary Composition I (3 cr.)

ENG W231 Professional Writing Skills (3 cr.) **OR** BUS X204 Business Communications (3 cr.)

COMM R110 Fundamentals of Speech Communication (3 cr.)

COMM C223 Business and Professional Communication (3 cr.)

Social Sciences and Humanities

Four courses for a minimum of 12 credit hours.

EACH of the following **three** courses:

ECON E201 Introduction to Microeconomics (3 cr.) P: Sophomore Standing

ECON E202 Introduction to Macroeconomics (3 cr.) P: Sophomore Standing

PHIL P120 Ethics (3 cr.)

ONE approved course from the following subject areas:

Anthropology

Geography

Journalism

Political Science

Psychology

Sociology

ONE approved course from the following subject areas:

Afro-American Studies

Classical Studies

Communications and Theater

Comparative Literature

English

Fine Arts

Folklore

Foreign Languages and Literatures

History

Music

Philosophy

Religious Studies

Speech

Theatre and Drama

Science

Two approved courses from the basic sciences, such as biology, chemistry, or physics for a total of 8 credit hours.

Recommended courses:

BIOL N212 Human Biology (3 cr.) and

BIOL N213 Human Biology Lab (1 cr.)

BIOL N214 Human Biology (3 cr.) P: N212 and

BIOL N215 Human Biology Lab (1 cr.) P or C: N213

Quantitative Methods, Computer

Four courses for a minimum of 11-12 credit hours.

TWO computer courses:

SPEA V261 Computers in Public Affairs (3 cr.)

SPEA V369 Managing Information Technology (3 cr.)

or SPEA V450/E400 Geographic Information Systems (2 cr.)

ONE mathematics course such as Math M118, M119 or higher:

Recommended:

MATH M118 Finite Mathematics (3 cr.)

ONE statistics course:

SPEA K300 Statistical Techniques (3 cr.) **P: M110 or M111. R: M118 or approved course**

HEALTH ADMINISTRATION MAJOR (17 Courses) – 48 credit hours

Health and Health Care System

EACH of the following 3 courses:

SPEA H316 Environmental Health (3 cr.)

SPEA H320 Health Systems Administration (3 cr.)

SPEA H322 Principles of Epidemiology (3 cr.)

Health and Public Policy

EACH of the following 3 courses:

SPEA H120 Contemporary Issues in Public Health (3 cr.) **or**

SPEA V170 Introduction to Public Affairs (3 cr.)

SPEA H441 Legal Aspects of Health Care

Administration (3 cr.) **or**

SPEA V376 Law and Public Policy (3 cr.)

SPEA H420 Health Policy (3 cr.)

Management Fundamentals

Three courses totaling 9 credit hours:

THREE of the following courses:

SPEA V263 Public Management (3 cr.)

SPEA V362 Nonprofit Management and Leadership (3 cr.)

SPEA V366 Management Behavior in Public Organizations (3 cr.)

SPEA V348 Management Science (3 cr.) P: SPEA K300, MATH M025 or MATH M118

SPEA V368 Managing Government Operations (3 cr.)

SPEA V373 Personnel Management in the Public Sector (3 cr.)

Health Services Management Skills

EACH of the following courses:

SPEA H352 Health Finance and Budgeting (3 cr.) **and** SPEA H401 Strategic Planning for Health Care Organizations (3 cr.)

TWO of the following courses:

SPEA H353 Advanced Health Finance and Budgeting (3 cr.)

SPEA H354 Health Economics (3 cr.)

SPEA H432 Health Care Marketing (3 cr.)

SPEA V370 Research Methods and Statistical Modeling (3 cr.)

Integration of Health Services Management Theory and Practice

EACH of the following courses:

SPEA H472 Applied Health Administration (3 cr.)

SPEA H474 Health Administration Seminar (3 cr.)

Health Services Management Experience

Two courses totaling 3 credit hours

EACH of the following courses:

SPEA H365 Health Administration Practicum (2 cr.)

SPEA V380 Internship in Public and Environmental Affairs (1 cr.) **or**

SPEA H466 Public Health Field Experience (1 cr.)

Bachelor of Science in Health Services Management

Students applying for the 120 credit hour B.S.H.S.M. degree must have earned an associate of arts or associate of science degree from an accredited university or college in nursing, allied health, dental hygiene, or medical technology; or an associate degree in another field with relevant work experience. Students who complete this degree are eligible to sit for the Long-Term Care Administrators Examination after they have fulfilled the Administrator-in-Training requirement.

DEGREE REQUIREMENTS

These requirements are divided into four main areas: general education, electives, a management core, and the health services concentration courses.

General Education

Communications

Three courses for a minimum of 9 credit hours.

The following writing course:

ENG W131 Elementary Composition (3 cr.) or approved option (must earn a C or better)

One of the following:

BUS X204 Business Communications (3 cr.)

ENG W231 Professional Writing Skills (3 cr.)

One of the following speech courses:

COMM C180 Introduction to Interpersonal Communication (3 cr.)

COMM C223 Business and Professional Communication (3 cr.)

COMM C228 Discussion and Group Methods (3 cr.)

COMM R110 Fundamentals of Speech Communication (3 cr.)

COMM R227 Argumentation and Debate (3 cr.)

Arts and Humanities

One course for a minimum of 3 credit hours from any of the following subject areas.

Afro-American Studies

Classical Studies

Communication and Theatre

Comparative Literature

English

Fine Arts

Folklore

Foreign Languages and Literature

History

Musicology and Music History

Philosophy

Religious Studies

Social Sciences

Four courses for a minimum of 12 credit hours.

The following courses:

ECON E201 Introduction to Microeconomics (3 cr.)

ECON E202 Introduction to Macroeconomics (3 cr.)

POLS Y103 Introduction to American Politics (3 cr.)

One approved course from one of the following subject areas:

Anthropology

Geography

Journalism

Linguistics

Political Science

Psychology

Sociology

Natural Sciences

Two courses with labs for a minimum of 6 credit hours.

The following courses:

BIOL N212 Human Biology (2 cr.) **and**

BIOL N213 Human Biology Laboratory (1 cr.)

BIOL N214 Human Biology (2 cr.) **and**

BIOL N215 Human Biology Laboratory (1 cr.)

Quantitative Methods

Three courses for a minimum of 9 credit hours.

One computer course:

SPEA V261 Computers in Public Affairs (3 cr.) **or** other approved option

One of the following courses:

MATH M118 Finite Mathematics (3 cr.)

MATH M119 Brief Survey of Calculus (3 cr.)

MATH 163 Integrated Calculus and Analytic Geometry I (3 cr.)

One of the following courses:

SPEA K300 Statistical Techniques (3 cr.)

ECON E270 Introduction to Statistical Theory in

Economics and Business (3 cr.) **or** other

approved option

General Electives

Sufficient additional courses beyond the general education, core, and concentration requirements are needed to reach the minimum 120 credit hours required for the degree.

Management Core

The following four courses:

SPEA V263 Public Management (3 cr.)

SPEA V346 Introduction to Government Accounting and Financial Reporting (3 cr.)

SPEA V348 Management Science (3 cr.)

SPEA V366 Managing Behavior in Public Organizations (3 cr.)

Health Services Management Concentration

Requirements (9 courses):

The following five courses:

SPEA H316 Environmental Health (3 cr.)

SPEA H320 Health Systems Administration (3 cr.)

SPEA H322 Principles of Epidemiology (3 cr.)

SPEA H352 Health Finance and Budgeting (3 cr.)

SPEA H371 Human Resources Management in Health Care Facilities (3 cr.)

Four of the following courses:

SPEA H402 Hospital Administration (3 cr.)

SPEA H411 Long-Term Care Administration (3 cr.)

SPEA H441 Legal Aspects of Health Care Administration (3 cr.)

SPEA H455 Topics in Public Health (3 cr.) (*May be repeated.*)

SPEA H474 Health Administration Seminar (3 cr.)

Bachelor of Science in Criminal Justice

The Bachelor of Science in Criminal Justice requires 120 credit hours.

DEGREE REQUIREMENTS

The program includes three main areas: general education (including a foreign language and a non-foreign language component), management and policy, and criminal justice.

Communications

Three courses for a total of 9 credit hours.

Take ALL of the following:

ENG W131 Elementary Composition (3 cr.)

ENG W231 Professional Writing Skills (3 cr.)

COMM R110 Fundamentals of Speech Communication (3 cr.)

Quantitative Methods

Three courses for a total of 9 credit hours.

ONE of the following Computer courses:

SPEA V261 Computer in Public Affairs (3 cr.)

SPEA V369 Managing Information Technology (3 cr.)

SPEA V450 Geographic Information Systems (3 cr.)

ONE of the following Mathematics courses:

MATH M118 Finite Mathematics (3 cr.)

MATH M119 Survey of Calculus I (3 cr.)

MATH 163 Integrated Calculus and Analytic Geometry I (5 cr.)

MATH 164 Integrated Calculus and Analytic Geometry II (5 cr.)

TAKE the following statistics course (or another statistics course approved by your faculty advisor):

SPEA K300 Statistical Techniques (3 cr.) **P: 110 or 111. R: M118**

Social Sciences

Four courses for a minimum of 12 credit hours.

Select 4 courses from the following:

SPEA V170 Introduction to Public Affairs (3 cr.)

ECON E201 Microeconomics (3 cr.)

ECON E202 Macroeconomics (3 cr.)

ANTH A104 Culture and Society (3 cr.)

GEOG G110 Introduction to Human Geography (3 cr.)

GEOG G130 World Geography (3 cr.)

POLS Y101 Principles of Political Science (3 cr.)

POLS Y103 Introduction to American Politics (3 cr.)

POLS Y219 Introduction to International Relations (3 cr.)

POLS Y217 Introduction to Comparative Politics (3 cr.)

PSY B104 Introduction to Psychology as a Social Science (3 cr.)

PSY B310 Life Span Development (3 cr.)

PSY B380 Abnormal Psychology (3 cr.)

SOC R100 Introduction to Sociology (3 cr.)

SOC R121 Social Problems (3 cr.)

SOC R461 Race and Ethnic Relations (3 cr.)

WOST W105 Introduction to Women's Studies (3 cr.)

Humanities and Natural Sciences

(16-20 credit hours)

Students must complete one of the following two options:

OPTION ONE—FOREIGN LANGUAGE (RECOMMENDED OPTION)

Total of 16 to 18 credit hours.

Complete first-year foreign language requirements: Only required for Option One.

This requirement may be satisfied in one of the following ways:

1. By completing first-year (10 credit hours) courses in a single language with passing grades;
2. By completing second- or third-year course with a grade of C or better;
3. By taking a placement test and placing into the 200 level or higher; this waives the 100-level requirement but does not carry with it credit toward graduation.

This requirement may be met with first-year proficiency in American Sign Language.

Placement Test Students with previous experience in French, German, or Spanish should take the Foreign Language Placement Test at the Testing Center to assess their level of language preparation.

Students who have achieved elementary or intermediate proficiency in any other foreign language should confer with the Foreign Languages and Cultures department for placement in the correct level of that foreign language.

Students who complete the course into which they were placed with a grade of C or better are eligible for special credit at a reduced fee for the appropriate lower-division course(s) that precede the course taken. Foreign language special credit counts toward graduation and toward the foreign language requirements.

117 Courses Courses numbered 117 are reserved for students who have never studied the language before. Students who have had two or more years of formal study in a language may take a 117-level course in that language as a refresher course before enrolling in a more advanced course, but they must recognize that their work will be graded on a Satisfactory/Fail basis. A grade of S is equivalent to a grade of C.

Non-Native Speakers Students for whom English is not a first language may be exempted from the foreign language requirement, without credit, by completion of ENG W131 and ENG W132 with the required grade of C or better.

Students whose native language is not English may demonstrate proficiency in their native language and earn 3 to 6 hours of 298/299 special credit by successfully completing an appropriate 300-level course. They may not, however, receive credit for taking first- and second-year courses in their native language.

Humanities and Natural Sciences:

Take the following course:

HIST H105 American History I (3 cr.)

Take one of the following Natural Science courses: (3-5 cr.)

ANTH A103 Human Origins and Prehistory (3 cr.)
AST A100 The Solar System (3 cr.)
AST A105 Stars and Galaxies (3 cr.)
BIOL K101 Concepts of Biology I – Plants (5 cr.)
BIOL K103 Concepts of Biology II – Animals (5 cr.)
BIOL N100 Contemporary Biology (3 cr.)
BIOL N107 Introduction to Zoology (4 cr.)
BIOL N200 The Biology of Women (3 cr.)
BIOL N212 Human Biology (2 cr.)
BIOL N213 Human Biology Laboratory (1 cr.)
BIOL N214 Human Biology (2 cr.)
BIOL N215 Human Biology Laboratory (1 cr.)
BIOL N217 Human Physiology (5 cr.)
BIOL N251 Introduction to Microbiology (3 cr.)
BIOL N322 Introductory Principles of Genetics (3 cr.)
CHEM C100 World of Chemistry (3 cr.)
CHEM C101 Elementary Chemistry I (5 cr.)
CHEM C102 Elementary Chemistry II (5 cr.)
CHEM C105 Principles of Chemistry I (3 cr.)
CHEM C106 Principles of Chemistry II (3 cr.)
GEOL G107 Environmental Geology (3 cr.)
GEOL G117 Environmental Geology Laboratory (1 cr.)
GEOL G109 Fundamentals of Earth History (3 cr.)

GEOL G119 Fundamentals of Earth History Laboratory (1 cr.)
GEOL G110 Physical Geology (3 cr.)
GEOL G120 Physical Geology Laboratory (1 cr.) **or**
GEOL G206 Advanced Physical Geology Laboratory (2 cr.)
GEOL G115 Introduction to Oceanography (3 cr.)
GEOL G132 Environmental Problems (3 cr.)
GEOL G180 Dinosaurs (3 cr.)
GEOG G107 Physical Systems of the Environment (3 cr.)
GEOG G108 Physical Geography Laboratory (2 cr.)
GEOG G303 Weather and Climate (3 cr.) Tropical Seminar in Urban and Regional Systems
GEOG G307 Biogeography: Distribution of Life (3 cr.)
GEOG/GEOL G185 Global Environmental Change (3 cr.)
PHYS 100 Physics in the Modern World (5 cr.)
PHYS 200 Our Physical Environment (3 cr.)
PHYS 218 General Physics (4 cr.)
PHYS 219 General Physics (4 cr.)
PHYS P201 General Physics I (5 cr.)
PHYS P202 General Physics II (5 cr.)
PHYS 152 Mechanics (4 cr.)
PHYS 251 Heat, Electricity, and Optics (5 cr.)
PSY B105 Psychology as a Biological Science (3 cr.)

OPTION TWO—NO FOREIGN LANGUAGE

Totaling 19-20 credit hours.

Humanities and Natural Sciences

Take all of the following:

Two courses for 6 credit hours

HIST H105 American History I (3 cr.)

HIST H106 American History II (3 cr.)

Take two of the following Humanities courses:

Two courses for a minimum of 6 credit hours

AFRO A150 Survey of the Culture of Black Americans (3 cr.)

CLAS C205 Classical Mythology (3 cr.)

CMLT C190 Introduction to Film (3 cr.)

ENG L105 Appreciation of Literature (3 cr.)

ENG L115 Literature for Today (3 cr.)

COMM T130 Introduction to Theatre (3 cr.)

COMM C190 Introduction to Film (3 cr.)

HER H100 Art Appreciation (3 cr.)

HER H101 History of Art I (3 cr.)

HER H102 History of Art II (3 cr.)

FOLK F101 Folklore (3 cr.)

FLAC F200 World Cultures Through Literature (3 cr.)

HIST H108 Perspectives on the World to 1800 (3 cr.)

HIST H113 History of Western Civilization I (3 cr.)

HIST H217 The Nature of History (3 cr.)

PHIL P110 Introduction to Philosophy (3 cr.)

PHIL P120 Ethics (3 cr.)

REL R133 Introduction to Religion (3 cr.)

REL R173 American Religion (3 cr.)

REL R180 Introduction to Christianity (3 cr.)

REL R212 Comparative Religion (3 cr.)

Take two of the following Natural Science courses (One must be a course with an accompanying lab):

ANTH A103 Human Origins and Prehistory (3 cr.)

AST A100 The Solar System (3 cr.)

AST A105 Stars and Galaxies (3 cr.)

BIOL K101 Concepts of Biology I – Plants (5 cr.)

BIOL K103 Concepts of Biology II – Animals (5 cr.)

BIOL N100 Contemporary Biology (3 cr.)
BIOL N107 Introduction to Zoology (4 cr.)
BIOL N200 The Biology of Women (3 cr.)
BIOL N212 Human Biology (2 cr.)
BIOL N213 Human Biology Laboratory (1 cr.)
BIOL N214 Human Biology (2 cr.)
BIOL N215 Human Biology Laboratory (1 cr.)
BIOL N217 Human Physiology (5 cr.)
BIOL N251 Introduction to Microbiology (3 cr.)
BIOL N322 Introductory Principles of Genetics (3 cr.)
CHEM C100 World of Chemistry (3 cr.)
CHEM C101 Elementary Chemistry I (5 cr.)
CHEM C102 Elementary Chemistry II (5 cr.)
CHEM C105 Principles of Chemistry I (3 cr.)
CHEM C106 Principles of Chemistry II (3 cr.)
GEOL G107 Environmental Geology (3 cr.)
GEOL G117 Environmental Geology Laboratory (1 cr.)
GEOL G109 Fundamentals of Earth History (3 cr.)
GEOL G119 Fundamentals of Earth History Laboratory (1 cr.)
GEOL G110 Physical Geology (3 cr.)
GEOL G120 Physical Geology Laboratory (1 cr.) **or**
GEOL G206 Advanced Physical Geology Laboratory (2 cr.)
GEOL G115 Introduction to Oceanography (3 cr.)
GEOL G132 Environmental Problems (3 cr.)
GEOL G180 Dinosaurs (3 cr.)
GEOG G107 Physical Systems of the Environment (3 cr.)
GEOG G108 Physical Geography Laboratory (2 cr.)
GEOG G303 Weather and Climate (3 cr.) Tropical Seminar in Urban and Regional Systems
GEOG G307 Biogeography: Distribution of Life (3 cr.)
GEOG/GEOL G185 Global Environmental Change (3 cr.)
PHYS 100 Physics in the Modern World (5 cr.)
PHYS 200 Our Physical Environment (3 cr.)
PHYS 218 General Physics (4 cr.)
PHYS 219 General Physics II (4 cr.)
PHYS P201 General Physics I (5 cr.)
PHYS P202 General Physics II (5 cr.)
PHYS 152 Mechanics (4 cr.)
PHYS 251 Heat, Electricity, and Optics (5 cr.)
PSY B105 Psychology as a Biological Science (3 cr.)

SPEA CRIMINAL JUSTICE MAJOR REQUIREMENTS

Management and Policy

Four courses totaling 12 credit hours.

Take four of the following:

V221 Nonprofit and Voluntary Sector (3 cr.)
V263 Public Management (3 cr.)
V264 Urban Structure and Policy (3 cr.)
E272 Introduction to Environmental Science (3 cr.)
V348 Management Science (3 cr.)
V366 Managing Behavior in Public Organizations (3 cr.)
V368 Managing Government Operations (3 cr.)
V372 Government Finance and Budgets (3 cr.)
V373 Human Resource Management in the Public Sector (3 cr.)
V376 Law and Public Policy (3 cr.)
V432 Labor Relations in the Public Sector (3 cr.)
V458 Fund Development for Nonprofit Organizations (3 cr.)
V472 Policy Processes in the United States (3 cr.)

Criminal Justice Concentration

Eleven courses totaling 33 credit hours.

Take the following course:

SPEA J101 The American Criminal Justice System
(3 cr.)

Take three of the following:

SPEA J301 Substantive Criminal Law (3 cr.) **or**
SPEA J302 Procedural Criminal Law (3 cr.) —
students may take both of these courses, but
only one will count toward this requirement
SPEA J305 The Juvenile Justice System (3 cr.)
SPEA J306 The Criminal Courts (3 cr.)
SPEA J321 American Policing (3 cr.)
SPEA J331 Corrections (3 cr.)

Take all of the following:

SPEA J201 Theoretical Foundations of Criminal
Justice Policies (3 cr.)
SPEA J202 Criminal Justice Data, Methods, and
Resources (3 cr.)
SPEA J439 Crime and Public Policy (3 cr.)

Four additional criminal justice courses totaling 12 credits. At least two of these totaling 6 credits must be 300- or 400-level criminal justice courses. SPEA J260 and SPEA J380 may count toward this requirement, but are limited to a maximum of three credit hours each. SPEA J380 may not be counted as one of the 300- or 400-level courses for this requirement.

GENERAL ELECTIVES

A sufficient number to total a minimum of 120 credit hours with a 2.0 (C) cumulative GPA and a minimum GPA of 2.3 (C+) in all courses taken to satisfy the Public Affairs and Policy and the Concentration area requirements.

Associate of Science Degree Programs

The School of Public and Environmental Affairs offers two associate degree programs. Courses that meet associate degree requirements generally can be applied to a subsequent baccalaureate degree program. The following are general requirements for the completion of an associate degree:

1. Students must apply for admission to the associate degree program before completing 35 credit hours of course work toward the degree. Applications are available in the records office.
2. A minimum of 60 credit hours with a 2.00 cumulative average or higher and a 2.30 average or higher in core and concentration courses is required. All requirements for this degree must be satisfied before earning 86 credit hours.
3. A limited number of courses may be transferred from other accredited institutions or be taken through independent study.
4. Courses taken to meet specific degree requirements cannot be double-counted (i.e., used to satisfy any other degree requirement).
5. A maximum of two elective courses may be taken Pass/Fail in this degree.

Associate of Science in Criminal Justice**DEGREE REQUIREMENTS**

The SPEA curriculum is divided into four categories—general education, electives, a public policy course, and a concentration area.

General Education**Communications**

Three courses for a minimum of 9 credit hours.

The following writing course:

ENG W131 Elementary Composition (3 cr.) **or**
equivalent campus-approved option (must earn a C– or better)

One of the following:

BUS X204 Business Communications (3 cr.)
ENG W231 Professional Writing Skills (3 cr.)

One of the following speech courses:

COMM C104 Voice and Diction (3 cr.)
COMM C180 Introduction to Interpersonal
Communication (3 cr.)
COMM C223 Business and Professional
Communication (3 cr.)
COMM C228 Discussion and Group Methods (3 cr.)
COMM R110 Fundamentals of Speech Communication
(3 cr.)
COMM R227 Argumentation and Debate (3 cr.)

Arts and Humanities

One course, for a minimum of 3 credit hours, from one of the following subject areas.

Afro-American Studies
Classical Studies
Communication and Theatre
Comparative Literature
English
Fine Arts
Folklore
Foreign Languages and Literature
History: H105 or H106 recommended
Musicology and Music History
Philosophy
Religious Studies

Social and Behavioral Sciences

Two courses, for a minimum of 6 credit hours, from two different subject areas.

Anthropology
Economics
Geography
Journalism
Linguistics
Political Science
Psychology
Sociology

Natural Sciences

One course, for a minimum of 3 credit hours, from one of the following subject areas.

Anatomy and Physiology
Astronomy
Biology
Botany
Chemistry
Geology
Physics
Zoology

Or one of the following cross-listed courses:

GEOG G107 Physical Systems of the Environment
(3 cr.)

GEOG G303 Weather and Climate (3 cr.)

GEOG G304 Meteorology and Climatology (3 cr.)

Quantitative Methods

One approved course (must be at least 3 credit hours) from *one* of the following subject areas:

Computer Science
Mathematics
Statistics

General Electives

Additional courses beyond the general education, core, and concentration requirements are needed to complete the Associate of Science degree requirement of 60 credit hours.

Public Policy

The following course:

SPEA V170 Introduction to Public Affairs (3 cr.)

Criminal Justice Concentration

Requirements (six courses):

The following course:

SPEA J101 The American Criminal Justice System
(3 cr.)

Three of the following courses:

SPEA J301 Substantive Criminal Law (3 cr.)
SPEA J306 The Criminal Courts (3 cr.)
SPEA J321 American Policing (3 cr.)
SPEA J331 Corrections (3 cr.)

Two additional SPEA criminal justice courses for a minimum of 6 credit hours:

SPEA J201 and SPEA J202 recommended.

Associate of Science in Public Affairs

Students must complete one of the following concentrations: Criminal Justice, Emergency Services Administration, Environmental Affairs, Public Administration, or a specialized program approved by a SPEA advisor.

DEGREE REQUIREMENTS

The SPEA curriculum is divided into four categories—general education, electives, public affairs core, and a concentration area.

General Education**Communications**

Three courses for a minimum of 9 credit hours.

The following writing course:

ENG W131 Elementary Composition (3 cr.) **or**
equivalent campus-approved option (must earn a C or better)

One of the following advanced writing courses:

BUS X204 Business Communications (3 cr.)
ENG W231 Professional Writing (3 cr.)

One of the following speech courses:

COMM C104 Voice and Diction (3 cr.)
COMM C180 Introduction to Interpersonal
Communication (3 cr.)
COMM C223 Business and Professional
Communication (3 cr.)
COMM C228 Discussion and Group Methods (3 cr.)

COMM R110 Fundamentals of Speech Communication (3 cr.)
 COMM R227 Argumentation and Debate (3 cr.)

Social Sciences

Three courses for a minimum of 9 credit hours.

The following two courses:

ECON E201 Introduction to Microeconomics (3 cr.)

or

ECON E202 Introduction to Macroeconomics (3 cr.)

POLS Y103 Introduction to American Politics (3 cr.)

One course from sociology or psychology.

Quantitative Methods

Two courses for a minimum of 6 credit hours.

One of the following computer science courses:

SPEA V261 Computers in Public Affairs (3 cr.)

CPT 115 Computer Information Systems Fundamentals (3 cr.) and

CPT 140 Programming Constructs Lab (3 cr.)

CSCI N201 Programming Concepts (3 cr.)

CSCI N207 Data Analysis Using Spreadsheets (3 cr.)

One approved mathematics course:

MATH M118 Finite Mathematics (3 cr.) or

MATH M119 Brief Survey of Calculus I (3 cr.)

(Note: Environmental Affairs Concentration students must select a course in calculus to satisfy this requirement.)

Arts and Humanities

One course from one of the following subject areas for a minimum of 3 credit hours.

Afro-American Studies

Classical Studies

Communication and Theatre

Comparative Literature

English

Fine Arts

Folklore

Foreign Languages and Literature

History: H105 or H106 recommended

Musicology and Music History

Philosophy

Religious Studies

General Electives

Additional courses beyond the general education, core, and concentration requirements are needed to complete the Associate of Science degree requirement of 60 credit hours.

Public Affairs Core

Four courses.

The following courses:

SPEA V170 Introduction to Public Affairs (3 cr.)

SPEA V264 Urban Structure and Policy (3 cr.)

One of the following courses:

SPEA E162 Environment and People (3 cr.)

SPEA E272 Introduction to Environmental Sciences (3 cr.)

One of the following courses:

SPEA V270 Survey of Administrative Techniques (3 cr.)

SPEA V366 Managing Behavior in Public Organizations (3 cr.)

Areas of Concentration

Criminal Justice Concentration

This concentration provides an introduction to law enforcement, correctional administration, and criminal law and procedure.

Requirements (five courses):

The following two courses:

SPEA J101 The American Criminal Justice System (3 cr.)

SPEA J301 Substantive Criminal Law (3 cr.)

One of the following courses:

SPEA J201 Theoretical Foundations of Criminal Justice Policies (3 cr.)

SPEA J202 Criminal Justice Data, Methods, and Resources (3 cr.)

SPEA J306 The Criminal Courts (3 cr.)

SPEA J321 American Policing (3 cr.)

SPEA J331 Corrections (3 cr.)

Two additional criminal justice courses.

Emergency Services Administration Concentration

The Emergency Services Administration Concentration provides managerial skills to emergency service personnel.

Requirements (five courses):

The following course:

SPEA V375 Emergency Services Administration (3 cr.)

Three of the following courses:

SPEA H320 Health Systems Administration (3 cr.)

SPEA J376 Principles of Public Safety (3 cr.)

SPEA K300 Statistical Techniques (3 cr.) or other approved course

SPEA V346 Introduction to Government Accounting and Financial Reporting (3 cr.)

SPEA V348 Management Science (3 cr.)

SPEA V372 Government Finance and Budgets (3 cr.)

SPEA V373 Human Resources Management in the Public Sector (3 cr.)

Students are required to complete successfully an approved administrative field experience course of at least 3 credit hours. The field experience requirement may be satisfied through an internship or special project that must have an advisor's prior approval.

Environmental Affairs Concentration

The Environmental Affairs Concentration provides an introduction to environmental problems and options for their solutions.

Requirements (seven courses):

The following course:

SPEA V365 Urban Development and Planning (3 cr.)

One chemistry or physics course (3-5 cr.)

One of the following courses:

GEOG G107 Physical Systems of the Environment (3 cr.)

GEOG G107 Environmental Geology (3 cr.)

GEOG G110 Geology: The Earth's Environment (3 cr.)

One of the following courses not taken as a social science requirement in the general education area:

ECON E201 Introduction to Microeconomics (3 cr.)

ECON E202 Introduction to Macroeconomics (3 cr.)

Two of the following courses:

SPEA E431 Water Supply and Wastewater Treatment (3 cr.)

SPEA E451 Air Pollution and Control (3 cr.)

SPEA E452 Solid and Hazardous Waste Management (3 cr.)

SPEA H316 Environmental Health (3 cr.)

BIOL K341 Principles of Ecology (5 cr.)

GEOG G315 Environmental Conservation (3 cr.)

GEOG G300 Environmental and Urban Geology (3 cr.)

GEOG G415 Geomorphology (3 cr.)

GEOG G416 Economic Geology (3 cr.)

POLS Y313 Environmental Policy (3 cr.)

One of the following courses:

SPEA/MATH/PSY K300 Statistical Techniques (3 cr.)

ECON E270 Introduction to Statistical Theory in Economics and Business (3 cr.)

PSY B305 Statistics (3 cr.)

SOC R359 Introduction to Sociological Statistics (3 cr.)

STAT 301 Elementary Statistical Methods I (3 cr.)

Public Administration Concentration

The Public Administration Concentration provides an overview of the primary areas of public administration.

Requirements (four courses):

Four of the following courses:

SPEA H316 Environmental Health (3 cr.)

SPEA V346 Introduction to Government Accounting and Financial Reporting (3 cr.)

SPEA V366 Managing Behavior in Public Organizations (3 cr.)
 (if not taken to meet public affairs core requirement)

SPEA V372 Government Finance and Budgets (3 cr.)

SPEA V373 Human Resources Management in the Public Sector (3 cr.)

SPEA V376 Law and Public Policy (3 cr.)

Special Concentration

Minimum of four courses.

A special concentration of at least four courses may be developed to meet special career needs. This concentration must be approved by a faculty advisor and program director.

SPEA Minors

Any Indiana University student enrolled in a baccalaureate program may pursue one or more of the minors offered by the School of Public and Environmental Affairs. Individuals interested in one or more of these minors should inquire in the SPEA undergraduate advising office for additional details. Students who successfully complete the requirements will have the minor conferred with their degree. SPEA's multidisciplinary faculty and curricula address environmental, health, public policy, and management issues from a variety of perspectives. A minor in SPEA can enhance career opportunities for liberal arts and other majors.

Public and Environmental Affairs Minor

Requirements (five courses):

The following course:

SPEA V170 Introduction to Public Affairs (3 cr.)

One of the following courses:

SPEA E162 Environment and People (3 cr.)

SPEA E272 Introduction to Environmental Sciences (3 cr.)

Three of the following courses:

SPEA E272 Introduction to Environmental Sciences (3 cr.) (*May be counted only once.*)

SPEA E400 Topics in Environmental Studies (3 cr.) (*May be repeated.*)

SPEA V263 Public Management (3 cr.)

SPEA V366 Managing Behavior in Public Organizations (3 cr.)

SPEA V373 Human Resources Management in the Public Sector (3 cr.)

SPEA V376 Law and Public Policy (3 cr.)

SPEA V432 Labor Relations in the Public Sector (3 cr.)

SPEA V444 Public Administrative Organization (3 cr.)

SPEA V450 Contemporary Issues in Public Affairs (3 cr.) (*May be repeated.*)

or other courses in public or environmental affairs approved by a SPEA advisor

Criminal Justice Minor

Requirements (five courses):

The following course:

SPEA J101 The American Criminal Justice System (3 cr.)

One of the following courses:

*SPEA J201 Theoretical Foundations of Criminal Justice Policies (3 cr.)

*SPEA J301 Substantive Criminal Law (3 cr.)

Three of the following courses:

*SPEA J201 Theoretical Foundations of Criminal Justice Policies (3 cr.)

*SPEA J301 Substantive Criminal Law (3 cr.)

SPEA J306 The Criminal Courts (3 cr.)

SPEA J321 American Policing (3 cr.)

SPEA J331 Corrections (3 cr.)

*J201 and J301 can be taken only once each for credit.

Environmental Science and Health Minor

Requirements (five courses):

The following course:

SPEA H316 Environmental Health (3 cr.)

One of the following courses:

SPEA H416 Environmental Health Policy (3 cr.)

POLS Y313 Environmental Policy (3 cr.)

Three of the following courses:

SPEA E326 Mathematical Methods in Environmental Science (3 cr.)

SPEA E410 Introduction to Environmental Toxicology (3 cr.)

SPEA E431 Water Supply and Wastewater Treatment (3 cr.)

SPEA E451 Air Pollution and Control (3 cr.)

SPEA E452 Solid and Hazardous Waste Management (3 cr.)

SPEA H428 Food Science and Sanitation (3 cr.)

SPEA H433 Industrial Hygiene and Radiological Health (3 cr.)

or other courses in environmental science and health approved by a SPEA faculty advisor.

Health Systems Administration Minor

Requirements (five courses):

The following course:

SPEA H320 Health Systems Administration (3 cr.)

One of the following courses:

SPEA H371 Human Resources Management in Health Care Facilities (3 cr.)

SPEA V373 Human Resources Management in the Public Sector (3 cr.)

Three of the following courses:

SPEA H352 Health Finance and Budgeting (3 cr.)

SPEA H402 Hospital Administration (3 cr.)

SPEA H411 Long-Term Care Administration (3 cr.)

SPEA H441 Legal Aspects of Health Care Administration (3 cr.)

SPEA H455 Topics in Public Health (3 cr.) (*May be repeated.*)

Certificate Programs

The areas of study in which certificate programs are currently available are environmental studies, nonprofit management, public affairs, public health, public management, and American Humanics.

General Requirements

1. Students in good academic standing and enrolled in baccalaureate programs at Indiana University are eligible to apply for a certificate at the SPEA records office. Interested students must apply for a certificate before completing 15 credit hours (9 credit hours for public health) of applicable course work.
2. SPEA students cannot earn a certificate in the same area as their concentration.
3. A grade point average of 2.0 or higher is required in all course work credited toward the certificate.

Certificate in Effective Citizenship

Offered in conjunction with the Department of Political Science, this certificate provides an understanding of political organizations and political action in the United States. (19 credit hours, including an internship with a civic group or political party).

Certificate requirements

Select a minimum of 19 credit hours from the following:

POLS Y103 Introduction to American Politics (3 cr.)

SPEA V170 Introduction to Public Affairs (3 cr.)

SPEA V260 Topics in Public Affairs: Political and Civic Organization (3 cr.) **or**

POLS Y250 Political and Civic Organization (3 cr.)

SPEA V260 Topics in Public Affairs: Effective Political Action (3 cr.) **or**

POLS Y260 Effective Political Action

Attendance at, and completion of a report on, both the Bulen Symposium on American Politics and the Bowen Institute for Political Participation (1 cr.)

Completion of an internship with a public affairs or civic group, or with a local or state political party organization.

SPEA V380 Internship in Public Affairs (3 cr.) **or**

POLS Y481 Field Experience in Political Science (3 cr.)

Completion of an independent research project, based on either the student's internship experience or a topic covered at the Bulen Symposium or Bowen Institute that the student attended.

SPEA V390 Readings in Public and Environmental Affairs (3 cr.) **or**

POLS Y480 Undergraduate Readings in Political Science (3 cr.)

Certificate in Environmental Studies

This certificate introduces students to selected aspects of current thinking and research on the nature, causes, and solutions to environmental problems.

Certificate Requirements (10 courses):

The following five courses:

BIOL K341 Principles of Ecology (3 cr.)

CHEM C101 Elementary Chemistry I (5 cr.) **or**

CHEM C105 Principles of Chemistry (5 cr.)

ECON E201 Introduction to Microeconomics (3 cr.)

ECON E202 Introduction to Macroeconomics (3 cr.)

SPEA V372 Government Finance and Budgets (3 cr.)

One of the following courses:

SPEA E162 Environment and People (3 cr.)

SPEA E272 Introduction to Environmental Sciences (3 cr.)

One of the following courses:

GEOG G107 Physical Systems of the Environment (3 cr.)

GEOL G107 Environmental Geology (3 cr.)

GEOL G110 Geology: The Earth's Environment (3 cr.)

Three of the following courses:

SPEA E431 Water Supply and Wastewater Treatment (3 cr.)

SPEA E451 Air Pollution and Control (3 cr.)

SPEA E452 Solid and Hazardous Waste Management (3 cr.)

SPEA H316 Environmental Health (3 cr.)

SPEA K300 Statistical Techniques (3 cr.) or other approved option

SPEA V365 Urban Development and Planning (3 cr.)

BIOL K442 Population and Systems Ecology (3 cr.)

CHEM C207 Introduction to Biochemistry (4 cr.)

CHEM C310 Analytical Chemistry (3 cr.)

CHEM C341 Organic Chemistry Lectures I (3 cr.)

ECON E485 Social Control of Industry (3 cr.)

GEOG G303 Weather and Climate (3 cr.)
 GEOG G304 Meteorology and Climatology (3 cr.)
 GEOG G315 Environmental Conservation (3 cr.)
 GEOL G300 Environmental and Urban Geology (3 cr.)
 GEOL G303 Geologic Mapping and Field Methods (4 cr.)
 GEOL G406 Introduction to Geochemistry (3 cr.)
 GEOL G415 Geomorphology (3 cr.)
 GEOL G451 Principles of Hydrogeology (3 cr.)
 PHYS 218 General Physics I (4 cr.)
 SOC R465 Population and Human Ecology (3 cr.)

Certificate in Nonprofit Management

The nonprofit sector is a dynamic and rapidly expanding area. The Certificate in Nonprofit Management allows students to take part in course work specifically concerned with the nonprofit sector and geared toward preparing them for careers in nonprofit organizations.

Certificate Requirements (five courses):

Courses must be selected from the following categories. Alternate courses may be substituted with the approval of the campus undergraduate program director. Courses listed with an asterisk are included in the American Humanics program. Completion of the American Humanics program at IUPUI qualifies a student for the IU Nonprofit Management Certificate.

Nonprofit Institutions (minimum of 3 credit hours):

*SPEA V221 Nonprofit and Voluntary Sector (3 cr.)
 *BUS W220 Introduction to the Nonprofit Corporation (3 cr.) (offered on the Bloomington campus)

Nonprofit Management (minimum of 6 credit hours):

The following course:

*SPEA V362 Nonprofit Management and Leadership (3 cr.)

One of the following courses:

*SPEA V356 Introduction to Nonprofit Accounting and Reporting (3 cr.)
 SPEA V401 Financial and Cost-Benefit Analysis (3 cr.)
 *SPEA V458 Fund Development for Nonprofit Organizations (3 cr.)
 *BUS A200 Foundations in Accounting (3 cr.)

Nonprofit Field (minimum of 3 credit hours):

Select one course from a special feature of a nonprofit field, service arena, or industry. Examples include:
 SPEA E162 Environmental and People (3 cr.)
 SPEA H316 Environmental Health (3 cr.)
 SPEA H320 Health Systems Administration (3 cr.)
 POLS Y326 American Social Welfare Policy (3 cr.) (offered on the Bloomington campus)
 *PSY B310 Life Span Development (3 cr.)
 *SOC R335 Sociological Perspectives on the Life Course (3 cr.)

Internship (minimum of 3 credit hours):

*SPEA V380 Internship in Public and Environmental Affairs (1-6 cr.) (for non-SPEA students) **or**
 *SPEA V381 Professional Experience (1-6 cr.) (for SPEA Students only)

Certificate in Public Affairs

The School of Public and Environmental Affairs offers the Certificate in Public Affairs to provide an overview of the study of public policy, governmental organization, and public management as an enhancement to the major area of study in a student's undergraduate program. The interdisciplinary program requires 27 credit hours, of which at least 15 but not more than 21 credit hours must be in SPEA courses.

Certificate Requirements (nine courses):

The following courses:

SPEA V170 Introduction to Public Affairs (3 cr.)
 SPEA V264 Urban Structure and Policy (3 cr.)

One of the following courses:

SPEA E162 Environment and People (3 cr.)
 SPEA E272 Introduction to Environmental Sciences (3 cr.)

A total of two courses from groups A, B, and C, with no more than one course from any group.

A. *Organizational Behavior*

BUS Z302 Managing and Behavior in Organizations (3 cr.)
 SPEA V270 Survey of Administrative Techniques (3 cr.)

B. *Public Administration*

SPEA V366 Managing Behavior in Public Organizations (3 cr.)

C. *Law*

SPEA J301 Substantive Criminal Law (3 cr.)
 SPEA V376 Law and Public Policy (3 cr.)
 BUS L201 Legal Environment of Business (3 cr.)
 POLS Y304 American Constitutional Law I (3 cr.)
 POLS Y305 American Constitutional Law II (3 cr.)

Choose any four of the following courses:

Public Affairs

SPEA V260 Topics in Public Affairs (approved topics) (3 cr.) (*May be repeated.*)
 SPEA V346 Introduction to Government Accounting and Financial Reporting (3 cr.)
 SPEA V348 Management Science (3 cr.)
 SPEA V365 Urban Development and Planning (3 cr.)
 SPEA V372 Government Finance and Budgets (3 cr.)
 SPEA V373 Human Resources Management in the Public Sector (3 cr.)
 SPEA V432 Labor Relations in the Public Sector (3 cr.)
 SPEA V442 Topics in Budgeting or Cost-Benefit (3 cr.) (*May be repeated.*)
 SPEA V444 Public Administrative Organization (3 cr.)
 SPEA V449 Policy Senior Seminar (3 cr.)
 SPEA V450 Contemporary Issues in Public Affairs (approved topics) (3 cr.) (*May be repeated.*)
 SPEA V472 Policy Processes in the United States (3 cr.)

Criminal Justice

SPEA J101 The American Criminal Justice System (3 cr.)
 SPEA J302 Procedural Criminal Law (3 cr.)

SPEA J322 Introduction to Criminalistics (3 cr.)
 SPEA J401 Criminal Law and Procedure (3 cr.)
 SPEA J439 Crime and Public Policy (3 cr.)

Geography

GEOG G412 Urban Transportation Analysis (3 cr.)
 GEOG G414 Regional Transport Systems (3 cr.)

Political Science

POLS Y200 Citizen and the Courts (3 cr.)
 POLS Y302 Public Bureaucracy in Modern Society (3 cr.)
 POLS Y306 State Politics in the United States (3 cr.)
 POLS Y394 Public Policy Analysis (3 cr.)

Sociology

SOC R329 Urban Sociology (3 cr.)
 SOC R345 Crime and Society (3 cr.)
 SOC R346 Control of Crime (3 cr.)
 SOC R480 Sociology and Social Policy (3 cr.)

Certificate in Public Health

The curriculum is designed to provide students with a basic understanding of environmental health issues, current health policies, and the structure of the medical care delivery system.

Certificate Requirements (six courses):

The following three courses:

SPEA H316 Environmental Health (3 cr.)
 SPEA H320 Health Systems Administration (3 cr.)
 SPEA H322 Principles of Epidemiology (3 cr.)

Three of the following courses:

SPEA E400 Topics in Environmental Studies (approved topics) (3 cr.) (*May be repeated.*)
 SPEA E410 Introduction to Environmental Toxicology (3 cr.)
 SPEA E431 Water Supply and Wastewater Treatment (3 cr.)
 SPEA E451 Air Pollution and Control (3 cr.)
 SPEA E452 Solid and Hazardous Waste Management (3 cr.)
 SPEA H342 Community Health Education (3 cr.)
 SPEA H411 Long-Term Care Administration (3 cr.)
 SPEA H416 Environmental Health Policy (3 cr.)
 SPEA H423 Disease Vector Control (3 cr.) **or**
 BIOL K443 Medical Parasitology and Entomology (3 cr.)
 SPEA H428 Food Science and Sanitation (3 cr.)
 SPEA H433 Industrial Hygiene and Radiological Health (3 cr.)
 SPEA H441 Legal Aspects of Health Care Administration (3 cr.)
 SPEA H459 Environmental Science and Health Data Analysis (3 cr.)
 SPEA H460 Techniques in Environmental Science and Health (3 cr.)
 SPEA V450 Contemporary Issues in Public Affairs (approved topics) (3 cr.) (*May be repeated.*)
 ECON E387 Health Economics (3 cr.)

Certificate in Public Management

The School of Public and Environmental Affairs offers the Certificate in Public Management to provide a systematic program that gives students an understanding of how to work in and with public organizations.

Certificate Requirements (seven courses):

The following course:

SPEA V263 Public Management (3 cr.)

Six of the following courses:

SPEA V346 Introduction to Government Accounting and Financial Reporting (3 cr.)

SPEA V348 Management Science (3 cr.)

SPEA V366 Managing Behavior in Public Organizations (3 cr.)

SPEA V368 Managing Government Operations (3 cr.)

SPEA V369 Managing Information Technology (3 cr.)

SPEA V370 Research Methods and Statistical Modeling (3 cr.)

SPEA V372 Government Finance and Budgets (3 cr.)

SPEA V373 Human Resources Management in the Public Sector (3 cr.)

SPEA V375 Emergency Services Administration (3 cr.)

SPEA V376 Law and Public Policy in Nonprofit Management (3 cr.)

SPEAV432 Labor Relations in the Public Sector (3 cr.)

American Humanics Certificate in Nonprofit Management

Any IUPUI student is eligible to enroll in the American Humanics Certificate in Nonprofit Management. It is offered in partnership with American Humanics, Inc. and the Indiana University Center on Philanthropy at IUPUI. This certification prepares college students for professional careers in the expanding job market of nonprofit youth and human services organizations. Upon completion of the program, students will be certified for possible positions of leadership with collaborating organizations such as the YMCA, American Red Cross, Big Brothers Big Sisters, Habitat for Humanity, and many other nonprofit agencies at both the local and national level. SPEA students may also simultaneously enroll in SPEA's Nonprofit Management Certificate. The American Humanics Certification program requires the demonstration of a set of knowledge and skill competencies and the completion of the 300-hour internship. Competencies are obtained through course work, professional workshops and retreats, the internship, and participation in the American Humanics Student Association. Students interested in learning more about the certificate should contact SPEA Student Services at 274-4656.

Course Descriptions

Undergraduate Courses

The abbreviation "P" refers to course prerequisites and "R" to recommended prerequisite courses.

Prerequisites can be waived by the instructor of the course. The number of hours of credit is indicated in parentheses following the course title. Courses are listed in four groups: environmental, public health, criminal justice, and public affairs.

Environmental Courses

E100 Environmental Topics (3 cr.) Study of selected issues in environmental affairs. Topics vary from semester to semester. May be repeated for credit.

E162 Environment and People (3 cr.) An interdisciplinary examination of the problems of population, pollution, and natural resources and their implications for society. Credit not given for both SPEA E162 and E262.

E262 Environmental Problems and Solutions (3 cr.) An integrated approach to understanding and solving environmental problems. Topics may include ecosystem restoration, surface water and groundwater contamination, air pollution, and global environmental change. This course is intended primarily for majors in the B.S.E.S. degree program.

E272 Introduction to Environmental Sciences (3 cr.) P: one statistics course. Application of principles from life and physical sciences to the understanding and management of the environment. Emphasis will be placed on: (1) the physical and biological restraints on resource availability and use, and (2) the technological and scientific options to solving environmental problems.

E311 Introduction to Risk Assessment and Risk Communication (3 cr.) This course will cover basic human health and risk assessment procedures, as outlined by the various regulatory agencies (especially EPA) and standards setting groups. Because risk communication is an integral part of any risk management process, risk communication techniques and applications will be integrated into the course material.

E325 Computing for Environmental Scientists (1-3 cr.) P: MATH M118 or M119; K300 or equivalent; and SPEA E272. Survey of computing applications to environmental issues. Personal computing emphasized. Application of spreadsheets, graphics, simple statistics, and BASIC programming to environmental science issues. Manipulation and interpretation of real data, case studies, and projects. Many software packages used.

E326 Mathematical Methods in Environmental Science (3 cr.) P: MATH M119 or M211; CSCI C211 or BUS K201; and K300. Mathematical modeling in environmental science. Expressing problems as equations. Applications and numerical evaluation of derivatives and integrals. Derivation and solution of differential equations. Use of package FORTRAN subroutines in problem solving. Statistics applied to environmental science.

E340 Environmental Economics and Finance (3 cr.) This course familiarizes students with the principles of environmental economics, finance, and cost-benefit analysis. The incentive effects of environmental policy design are assessed. Policy instruments include tradable permits, emissions taxes, deposit-refund systems, pollution prevention programs, and voluntary agreements. Project appraisal techniques are then developed and applied to specific case evaluations.

E355 Introduction to Limnology (3 cr.) Limnology is the integrated science of inland waters. Principles of physics, chemistry, geology, and biology combine to form the basis for understanding how lakes and streams function as aquatic ecosystems. The course will highlight the effects of human activity on lake and stream ecosystems.

E360 Introduction to Biological Resources (3 cr.) P: SPEA E272; one biology course. This

course provides the necessary background for students interested in fisheries, wildlife, or forest management who have had little course work or experience with the taxonomy, ecology, or natural history of plants or animals.

E363 Environmental Management (3 cr.) Introductory course in environmental management. Subjects covered include current issues and trends, total quality environment management, managing scientific and technical personnel, managing contracts and grants, nontraditional approaches to regulation, environmental conflict resolution, working with the media, risk communication, and working with communities.

E400 Topics in Environmental Studies (2-3 cr.) P: SPEA E272. An interdisciplinary consideration of specific environmental topics. May be repeated for credit.

E410 Introduction to Environmental Toxicology (3 cr.) P: SPEA E272 or H316; one biology course. Study of toxic mechanisms, pathology, and disease development resulting from exposure to biological and chemical agents in the environment.

E411 Introduction to Groundwater Hydrology (3 cr.) An overview is presented of the theory and practice of groundwater movement, groundwater contamination, and aquifer testing remediation, as well as policy issues such as groundwater management. The formal lectures are supplemented by several guest speakers who are professionals working in different areas of groundwater hydrology.

E418 Vector-Based Geographic Information Systems (3 cr.) Introduction to geographic information systems using vector data structure Vector GIS capabilities and uses. Data structure and file management of spatial data. Laboratory exercises using ARC/INFO software.

E431 Water Supply and Wastewater Treatment (3 cr.) P: SPEA E272 or H316; CHEM C101 or equivalent; MATH M119 or equivalent. Health and ecological premises for water and wastewater treatment; principles of water supply; treatment, distribution, and construction; basis for water standards and laboratory examinations; wastewater disposal methods and construction for private installations, institutions, municipalities, and industries; water quality control with respect to wastewater pollution.

E440 Wetlands: Biology and Regulation (3 cr.) P: SPEA E272 or H316; any biology course. This course trains students to evaluate wetlands to comply with federal, state, and local regulations. It examines the principles that inspired these regulations and assesses the consequences. It seeks to relate the breadth and strength of available scientific knowledge to public policy goals.

E441 Controversies in Environmental Health (3 cr.) A skills course in a debate format. Skills are developed by researching, preparing arguments for, and debating topics related to environmental health and health of the environment. Clear writing skills are also emphasized, as the students write up debate evaluations which are critically graded for content, form, and style.

E451 Air Pollution and Control (3 cr.) P: SPEA E272 or H316; CHEM C101 or equivalent; MATH M119 or equivalent. Type, sources, and behavior of air contaminants; economic, social, and health hazard aspect of air pollutants; principles of evaluation; indices of pollution and their worth; control measures, organization, and administration of community control programs.

E452 Solid and Hazardous Waste Management (3 cr.) P: SPEA E272 or H316. Types and sources of solid waste; collection methods; disposal techniques: sanitary landfill, incineration, composting, reclaiming, or recycling; advantages and disadvantages of each; special and hazardous waste handling; operation and management of solid and hazardous waste programs.

E457 Introduction to Conservation Biology (3 cr.) Ecological principles associated with rare species and with biodiversity, laws and statutes used to conserve biodiversity, and land and species management practices. The aim is to understand scientific and political complexities of conservation biology, and to study different methods used to conserve living resources and resolve conflicts associated with conservation.

E460 Fisheries and Wildlife Management (3 cr.) P: SPEA E272 or H316; any biology course. This course first reviews taxonomy, vertebrate biology, and population ecology, then introduces the student to a variety of conflicts concerning fisheries and wildlife. Case studies examine endangered species, overharvesting, maximum sustained yield, habitat evaluation, and recreational use.

E461 Fisheries and Wildlife Management Laboratory (3 cr.) P: SPEA E272 or H316; one biology course; and SPEA E460 (can be concurrent). Practical experience course in which student identify fish and wildlife in the field for the purpose of evaluating the effectiveness of and making recommendations for change to existing wildlife plans.

E466 International and Comparative Environmental Policy (3 cr.) This course explores how stakeholders manage environmental problems that extend beyond national borders. Key questions considered include the following: How do nations resolve environmental conflict? Is environmental diplomacy in a state of crisis? How can we improve international environmental management? Historical, contemporary and emerging institutions for international environmental protection are examined.

E475 Techniques of Environmental Science (3 cr.) P: SPEA E272 or H316. Principles and methods of sampling, collection, measurement, analysis, interpretation, and presentation of data concerning environmental science. Through lab demonstrations and fieldwork, students will become familiar with instrumentation and analytical methods currently used in environmental analysis. Team instruction will be used to demonstrate techniques.

E476 Environmental Law and Regulation (3 cr.) Introductory course in environmental law and regulation. Subjects covered include command and control regulation, air quality, water quality, toxics, waste management, energy, natural resources, international environmental law, and alternative dispute resolution.

Public Health Courses

H120 Contemporary Health Issues (1-3 cr.)

An examination of current public health, environmental health, and health service delivery issues in the U.S. Topics include the organization and costs of health systems, access to care, and the interrelationships between risk factors and health; also, environmental challenges facing our society and their impact on health.

H316 Environmental Health (3 cr.) An introduction to the broad concerns of environmental and health interactions. Topics considered include vector control food sanitation, air quality control, water and wastewater treatment and quality control, solid and hazardous waste management, industrial hygiene, radiation safety, and public safety, as well as related policy and administrative techniques.

H320 Health Systems Administration (3 cr.) An overview of the U.S. health care delivery system. It examines the organization, function, and role of the system; current system problems; and alternative systems or solutions.

H322 Principles of Epidemiology (3 cr.) A basic overview of epidemiologic methodology and techniques. Both communicable and chronic disease risk factors will be discussed, along with data acquisition, analysis techniques, and current published epidemiological studies.

H342 Community Health Education (3 cr.) A study of theory and practice in the field of professional health education. The process of behavioral change is examined. Procedures for the planning, delivery, and evaluation of health education practices are considered.

H352 Health Finance and Budgeting (3 cr.) A study of the financial management of health care facilities based on generally accepted business principles. Accounting and managerial control of cash, accounts receivable, inventory control, budgeting, and cost control, as well as accounting and evaluation of short- and long-term debt will be examined.

H353 Advanced Health Finance and Budgeting (3 cr.) P: SPEA H352. This course builds upon H352 Health Finance and Budgeting. Will use a series of case studies to apply techniques and principles taught in H352.

H354 Health Economics (3 cr.) This course will familiarize students with economic tools and principles applied to health care and policy. In addition to the textbook, students will analyze recent articles on federal policy.

H365 Health Administration Practicum (2 cr.) Supervised orientation, observation, and instruction with local- and state-level health-related agencies and facilities. Primary focus will be placed on health administration.

H367 Environmental Science and Health Practicum (2 cr.) Supervised orientation, observation, and instruction with local- and state-level health-related agencies and facilities. Primary focus will be placed on environmental science and health.

H371 Human Resources Management in Health Care Facilities (3 cr.) This course covers the

function of management, which is concerned with the acquisition, development, and use of human resources in the field of health care delivery. Labor relations relating to health care delivery are also included.

H401 Strategic Planning for Health Care Organizations (3 cr.) This course examines strategic planning techniques as they apply to health care organizations. Students will develop and defend a comprehensive strategic plan for a case facility. One half of the course will be conducted in a workshop format.

H402 Hospital Administration (3 cr.) P: SPEA H320. The study of organization, structure, function, and fiscal operations within hospitals. The role of the hospital in the community, relationship to official and voluntary health agencies, coordination of hospital departments, and managerial involvement will be examined.

H411 Long-Term Care Administration (3 cr.) Nursing home regulations, legal aspects, and insurance; personnel management; medical records; diet and food service; rehabilitation; nursing services; psychiatric aspects in handling of geriatric patients; professional standards; use of volunteer groups.

H416 Environmental Health Policy (3 cr.) Study of professional requirements and duties of the environmental health functions within health agencies; consideration of applicable laws and standards in each environmental health function; environmental health program planning, evaluation, implementation, and personnel responsibilities.

H423 Disease Vector Control (3 cr.) Survey of animal and insect disease vectors and economic pests of public health significance; vector and pest identification and control procedures; survey of the classification, application, and restriction of pesticides in controlling disease vectors and economic pests commonly found in the U.S.

H428 Food Science and Sanitation (3 cr.) Basic concepts of food technology with emphasis on methods and procedures in food processing to minimize contamination and to prevent food-related illness. Federal, state, and local food laws and inspection procedures will be examined.

H432 Health Care Marketing (3 cr.) A practical study of marketing in health care institutions, health service organizations, and health insurers. A basic foundation in marketing principles, new methods in marketing products and services, and inexpensive marketing techniques will be examined.

H433 Industrial Hygiene and Radiological Health (3 cr.) Fundamental concepts of industrial and occupational health hazards of a biological, chemical, or physical nature; evaluation of hazards, methods of control, and safety protection; Occupational Safety and Health Act standards. Principles of radioactivity; characteristics of ionizing and nonionizing radiation; detection and measurement of radiation dose and exposure, radiation uses, and hazards; methods for controlling radiation hazards.

H441 Legal Aspects of Health Care Administration (3 cr.) An overview of the liability

and legal responsibility, as well as legal recourse, that health care facilities may exercise. This course will discuss policies and standards relating to health facility administration. Also included is a discussion of financial aspects unique to the hospital/health care facility environment, such as third-party payments and federal assistance.

H448 Public Health Education Methods (3 cr.)

Usual techniques of group work with investigations of social and psychological factors that determine effectiveness in promoting public health. Laboratory time provides opportunity for competence in group work and in design and use of promotional materials.

H455 Topics in Public Health (1-3 cr.) Extensive discussion of selected topics in public health. The topic may change from semester to semester, based on resource availability and student demand. May be repeated for credit.

H456 Managed Care (3 cr.) Course examines the organizational structures of managed care as used in the health industry. The strengths and weaknesses of managed care organizations are examined as well as the performance of both public and private managed care organizations. Course also examines and discusses current issues surrounding managed care.

H459 Environmental Science and Health Data Analysis (3 cr.) Provides students with an understanding of basic principles needed to perform sampling and analysis of field and laboratory environmental data. Topics include properties of chemical and biological constituents, detection limits, calibration, quality control, precision accuracy, and statistical analysis.

H460 Techniques in Environmental Health (3 cr.) P: SPEA H459. Basic physical, chemical, and biological examinations and standards for potable water quality, wastewater treatment determinations, and stream pollution control. Basic physical, chemical, and biological (ergonomic) examinations used in industrial hygiene and air pollution control. Instruction in basic laboratory skills and techniques for performing these examinations.

H466 Public Health Field Experience (1 cr.) P: SPEA H465. Supervised advanced training in professional and technical functions in public health; guided student activity and performance in professional public health functions. Individualized programs may be arranged to suit students' areas of concentration.

H474 Health Administration Seminar (3 cr.) P: SPEA H320 and senior standing. This course will examine current issues in public health and governmental and private initiatives to resolve these issues.

Criminal Justice Courses

J101 The American Criminal Justice System (3 cr.) Introduction to the criminal justice system of the United States and its function in contemporary society.

J201 Theoretical Foundations of Criminal Justice Policies (3 cr.) P: SPEA J101. This course examines the impact of sociological, biological, and economic theories of crime and the practice of

criminal justice. Focus is on the nature and importance of theory, context of theoretical developments, methods for the critical analysis of theoretical developments, and policy implications of the varying perspectives considered.

J202 Criminal Justice Data, Methods, and Resources (3 cr.) P: SPEA J101. R: MATH M111 or equivalent; SPEA V261 or equivalent. Course examines basic concepts of criminal justice. Students become familiar with research techniques necessary for systematic analysis of the criminal justice system, offender behavior, crime trends, and program effectiveness. Students will learn to critically evaluate existing research. Students will become familiar with existing sources of criminal justice data and will learn to assess the quality of that data.

J260 Topics in Criminal Justice (1-3 cr.) Study of selected issues in criminal justice. Topics vary from semester to semester. May be repeated for credit.

J301 Substantive Criminal Law (3 cr.) P: SPEA J101. R: SPEA J201 and SPEA J202. The development, limitations, and application of substantive criminal law utilizing the case-study method.

J302 Procedural Criminal Law (3 cr.) P: SPEA J101. Criminal law application and procedure from the initiation of police activity through the correctional process, utilizing the case-study method.

J303 Evidence (3 cr.) P: SPEA J101. The rules of law governing proof at trial of disputed issues of fact; burden of proof; presumptions and judicial notice; examination, impeachment, competency, and privileges of witnesses; hearsay rule and exceptions—all related as nearly as possible to criminal, as opposed to civil, process.

J304 Correctional Law (3 cr.) P: SPEA J101. Legal problems from conviction to release: pre-sentence investigations, sentencing, probation and parole, incarceration, loss and restoration of civil rights.

J305 Juvenile Justice (3 cr.) P: SPEA J101. This course is designed to provide an overview of the justice system's response to abused, neglected, and dependent children; juvenile misconduct; and delinquent behavior. An extensive review of the development of recent legal changes to the court, options for prevention, treatment of juvenile offenders, and possible system reforms.

J306 The Criminal Courts (3 cr.) P: SPEA J101. R: SPEA J201 and SPEA J202. An analysis of the criminal justice process from prosecution through appeal. The organization and operation of felony and misdemeanor courts are examined. Topics include prosecutorial decision making, plea bargaining, judicial selection, and the conduct of trials, sentencing, and appeal.

J310 Introduction to Administrative Processes (3 cr.) P: SPEA J101. Introduction to principles of management and systems theory for the administration of criminal justice agencies. Credit not given for both SPEA J310 and SPEA V270.

J320 Criminal Investigation (3 cr.) P: SPEA J101. Theory of investigation, crime scene procedures, interviews, interrogations, surveillances, and sources of information; collection and preservation of physical evidence; investigative techniques in specific crimes.

J321 American Policing (3 cr.) P: SPEA J101. R: SPEA J201 and SPEA J202. This course will examine the history, evolution, and organization of policing in the United States. Emphasis is placed on such major contemporary issues as the police role, discretion, use of force, corruption, accountability, and community policing.

J322 Introduction to Criminalistics (3 cr.) P: SPEA J101. R: SPEA J301. This course will examine physical evidence developed through the investigative process, and methods of identifying and establishing validity and relevance through forensic laboratory techniques.

J331 Corrections (3 cr.) P: SPEA J101. R: SPEA J201 and SPEA J202. This course examines the historical development of the American correctional system; the study of administration of local, state, and federal corrections programs, including jails, probation, community corrections, and prisons. Includes the study of punishment rationales, current correctional policies, and possibilities for reform.

J369 Private Justice: Police, Courts, and Corrections (3 cr.) P: SPEA J101. This course examines the role of private policing and security; courts and adjudication; and corrections. Includes legislative and ethical issues and the economics of criminal and juvenile justice privatization. Principles of loss prevention; protection of assets; relationship between public and private services; current issues in privatization.

J370 Seminar in Criminal Justice (3 cr.) P: SPEA J101. Selected contemporary topics in criminal justice. May be repeated for credit.

J376 Principles of Public Safety (3 cr.) P: SPEA J101. Examination of threats to public safety and of governmental response at various levels to those threats. Treatment of such areas as transportation and highway threats; occupational safety and health; criminal threats; emergency and disaster planning; consumer protection; and fire control and suppression. Discussion of techniques to identify and measure risk, the acceptability of risk, and governmental attempts to control risk.

J380 Internship in Criminal Justice (1-6 cr.) P: permission of instructor. Open to interested students who qualify upon approval of the faculty. Students may be placed with various criminal justice agencies for assignment to a defined task relevant to their educational interests. Tasks may involve staff work or research. Full-time participants may earn up to 6 credit hours. May be repeated for credit. Course is graded S/F (Satisfactory/Fail).

J433 Institutional Corrections (3 cr.) P: SPEA J101. The history and development of the jail, penitentiary, prison, and reformatory. Analysis and evaluation of contemporary imprisonment.

J439 Crime and Public Policy (3 cr.) P: SPEA J101. R: SPEA J201 and SPEA J202. A detailed examination of the major efforts designed to control or reduce crime. A review of existing knowledge is followed by an investigation of current crime control theories, proposals, and programs.

J440 Corrections in the Community (3 cr.) P: SPEA J101. A detailed analysis of correctional alternatives to incarceration that focus on the reintegration of the offender while remaining in the

community. Because of their extensive use, considerable attention is given to probation and parole. Other topics include diversion, community residential programs, restitution, halfway houses, and home detention.

J445 Trends in Corrections (3 cr.) P: SPEA J101. Analysis and evaluation of contemporary correctional systems. Discussion of recent research concerning the correctional institution and the various field services.

J460 Police in the Community (3 cr.) P: SPEA J101. In-depth examination of crime as an urban policy problem, focusing on the role of police and victims in defining crime as a policy problem, and their role in seeking to reduce the incidence of crime.

J470 Seminar in Criminal Justice (3 cr.) P: senior standing. Emphasizes current developments in legal, administrative, and operational aspects of the criminal justice system.

J480 Research in Criminal Justice (1-6 cr.) P: junior standing and consent of instructor. Individual research under guidance of faculty member.

Public Affairs Courses

K300 Statistical Techniques (3 cr.) P: MATH M014 or equivalent. R: MATH M118. An introduction to statistics. Nature of statistical data. Ordering and manipulation of data. Measures of central tendency and dispersion. Elementary probability. Concepts of statistical inference decision: estimation and hypothesis testing. Special topics discussed may include regression and correlation, analysis of variance, nonparametric methods. Credit not given for both K300 and either ECON E270/ E370, SOC S250, or PSY/MATH K310.

V100 Current Topics in Public Affairs (1-3 cr.) Readings and discussion of current public issues and problems. May be repeated for credit.

V160 National and International Policy (3 cr.) This course will discuss current debates about United States public policy on the national and international levels. Some policy issues covered are economic, crime, security, health, and energy. Credit not given for both V160 and V170.

V170 Introduction to Public Affairs (3 cr.) Broad coverage of public affairs through critical and analytical inquiry into policy making at all levels of government. Particular emphasis on intergovernmental relations as they affect policy in the federal system. Credit not given for both V160 and V170.

V221 Nonprofit and Voluntary Sector (3 cr.) This course provides a broad overview of the United States nonprofit sector. Topics include the sector's size and scope; and its religious, historical, and theoretical underpinnings. It also examines perspectives on why people organize, donate to, and volunteer for nonprofit organizations, and looks at current challenges that the sector faces.

V252 Career Development (1 cr.) Career planning and placement strategies, assessment of labor market information, market surveys, and development of customized portfolios. Emphasis given to projects, papers, and independent research.

V260 Topics in Public Affairs (3 cr.) Study of selected issues in public affairs. Topics vary from semester to semester. May be repeated for credit.

V261 Computers in Public Affairs (3 cr.) An introduction to computer applications in public affairs. Topics include basic terminology, core concepts, and issues associated with managing operating systems, designing networks, and applying user information technology to public affairs problems. Issues of security and ethics in computing are also considered.

V263 Public Management (3 cr.) This course is an examination of the management process in public organizations in the United States. Special attention will be given to external influences on public managers, the effect of the intergovernmental environment and, in particular, problems of management in a democratic, limited government system.

V264 Urban Structure and Policy (3 cr.) An introduction to urban government and policy issues. Topics include urban government structure and policy making, the economic foundations and development of cities, demography of cities and suburbs, land-use planning, and other selected urban policy problems. Credit not given for both SPEA V161 and SPEA V264.

V267 American Humanities Management Institute (1 cr.) Students attending the American Humanities Management Institute (AHMI) are required to participate in orientation meetings to plan for AHMI and raise funds for the trip. AHMI is held annually in January. Permission of the American Humanities campus director is required. May be repeated for credit.

V268 American Humanities Topics (1-3 cr.) Topics covering specific American Humanities competencies reflecting the particular needs and interests of participating students and the local advisory board for the program. Topics may include risk management, fundraising, board and committee development, and nonprofit marketing. Topics vary from semester to semester. May be repeated for credit.

V270 Survey of Administrative Techniques (3 cr.) Introduction to principles of management and systems theory for the administration of public agencies. Credit not given for both SPEA V270 and SPEA J310.

V340 Urban Government Administration (3 cr.) Structure of local government in the U.S., federalism and intergovernmental relations, policy problems faced by local officials, and the implications of these problems for local government administrators.

V346 Introduction to Government Accounting and Financial Reporting (3 cr.)

P: BUS A201 or permission of instructor. An introduction to government accounting, including comparison with accounting for the private sector, intended as background for the use of financial administrators. The course deals primarily with municipal accounting. Not open to students with more than 7 credit hours of accounting.

V348 Management Science (3 cr.) P: SPEA K300, MATH M025, or MATH M118. Introduction to management science models and methods for policy analysis and public management. Methods include decision analysis, linear programming, queuing analysis, and simulation. Computer-based applications

are included. Prior familiarity with computers is recommended, though not required.

V350 Introduction to Development Administration (3 cr.) Introduction to the administration of development activities in poor countries. Examines key problems, including the complexity of development, the interplay of external donors and domestic administration, and the difficulties of organizing and managing development efforts. Combines cases and textual readings, allowing the student to analyze actual programs, policies, and projects.

V352 Personal Career Planning (1 cr.) Investigation of careers, the world of work, and the career planning process. The focal point is on students and their goals. Provides assistance in developing practical, meaningful, and realistic insights into the nature of making a public career choice in today's world. Credit not awarded for both SPEA V352 and BUS X420.

V356 Introduction to Nonprofit Accounting and Reporting (3 cr.) P: BUS A201 or consent of instructor. This course covers concepts and processes of nonprofit accounting and financial reporting with exploration of differences between for profit, governmental and nonprofit systems. Examples will be drawn from health organizations, welfare agencies, charities, and educational institutions.

V361 Financial Management (3 cr.) This course introduces students to accounting, financial management techniques, and financial reporting. Topics include accounting, debit/credit sheets and balance sheets, financial indicators, fund balances, fringe benefits and pensions, and payroll management.

V362 Nonprofit Management and Leadership (3 cr.) Students in this course examine the management practices of nonprofit organizations. The course encourages students to take the perspectives of nonprofit managers, volunteers, board members, policy makers, donors, and clients. Course projects expand understanding of the nonprofit sector and develop students' management skills, analytical tools, and knowledge.

V365 Urban Development and Planning (3 cr.) P: SPEA V264 and SPEA K300. This course identifies the major problems associated with urban development in the U.S. and investigates the potential of public planning strategies and tools to deal with these problems. An emphasis is placed on the application of analytical approaches to problem definition and solution.

V366 Managing Behavior in Public Organizations (3 cr.) This course provides an introduction to the management of people in public organizations. Focus is on behavioral science in management and related analytical and experiential applications.

V368 Managing Government Operations (3 cr.) P: SPEA V348. Application of analytical techniques to operating decisions in public management sector. Cases are used extensively to illustrate the application of techniques (such as charting, capacity and demand analysis, forecasting, performance measurement, decision analysis, queuing/simulation, Markov

modeling, and cost-effective analysis) to design, scheduling, inventory assignment, transportation, and replacement decisions.

V369 Managing Information Technology (3 cr.) Analysis and application of information technology to problem solving.

V370 Research Methods and Statistical Modeling (3 cr.) P: SPEA K300 or equivalent. This course will introduce the student to the basic methods, issues, analytical techniques, and ethical considerations of evaluation research.

V371 Financing Public Affairs (3 cr.) P: SPEA V160 or V170; ECON E201, E202. A survey of economic and political theories of market failures, public expenditure evaluation, economic stabilization, systems of redistribution, and fiscal federalism. Examples and applications to contemporary government decisions.

V372 Government Finance and Budgets (3 cr.) Study of fiscal management in public agencies, including revenue administration, debt management, and public budgeting.

V373 Human Resources Management in the Public Sector (3 cr.) The organization and operation of public personnel management systems with emphasis on concepts and techniques of job analysis, position classification, training, affirmative action, and motivation.

V375 Emergency Services Administration (3 cr.) An overview of management principles and functional components of EMS systems.

V376 Law and Public Policy (3 cr.) The purpose of this course is to provide a basic understanding of the origins, process, and impact of law in the making and implementing of public policy. The course's major objective is to provide students with the substantive concepts necessary to understand the judicial system and law in its various forms.

V377 Legal Process and Contemporary Issues in America (3 cr.) P: SPEA V376. An introduction to the American legal system, including the Constitution, courts system, and administrative law in federal and state agencies. Readings and discussion center around current issues affected by the legal process.

V380 Internship in Public and Environmental Affairs (1-6 cr.) P: permission of instructor. Open to interested students upon approval of the faculty. Students are placed with public agencies or governmental units for assignment to a defined task relevant to their educational interests in public affairs. Tasks may involve staff work or research. Full-time participants may earn up to 6 credit hours. May be repeated for credit. Course is graded S/F.

V381 Professional Experience (1-6 cr.) Students will be required to fulfill a minimum of 120 hours of relevant professional work.

V386 Case Studies for Policy Analysis (3 cr.) This course focuses on analyzing case studies of public policies using a variety of disciplinary perspectives, including application of the principles and concepts of intermediate microeconomic theory.

V388 American Humanics Internship (3-6 cr.) American Humanics, Inc. requires an internship of 300 to 600 contact hours. A minimum of 3 credit hours is required. Credits will be given at the rate of 1 hour = 100 internship hours. Permission of the American Humanics campus director is required.

V390 Readings in Public and Environmental Affairs (0-3 cr.) P: permission of instructor. Independent readings and research related to a topic of special interest to the student. Written report required. May be repeated for credit.

V401 Financial and Cost-Benefit Analysis (3 cr.) This course familiarizes students with the principles of financial analysis, cost-benefit analysis, and Kaldor/Hicks accounting. Topics include net present value calculation, net annual worth, public and private decision criteria, and market data adjustment for taxes, rents, and other market distortions.

V405 Public Law and the Legislative Process (3 cr.) This course focuses on Congress as a policy-making body in the United States public law system. It covers the constitutional framework for congressional operations as well as technical aspects of the legislative process such as bill drafting and analysis, the role of leadership, and the prerogatives of individual members.

V406 Public Law and the Electoral Process (3 cr.) The purpose of this course is to facilitate understanding of the interaction of electoral politics and policy. It covers the legal framework of the evolution of the "right" to vote, the impact of the judiciary on the structure of elections, limitations on campaign practices, and the importance of legislative districting and its control.

V407 Public Law and Government Relations (3 cr.) The purpose of this course is to build understanding of government relations work as applied to careers in the field. It covers the historical evolution of the constitutional right to petition the government with an understanding of the limitations imposed upon the process. The interaction of public and private sectors is included.

V421 Metropolitan Development (3 cr.) Discussion of the process of development in metropolitan regions. Includes topics such as economic development, land use evolution, and demographic change. Consideration of relevant policy issues.

V422 Transportation Policy Analysis (3 cr.) This course examines current issues in transportation to identify the key analytic and management issues that must be considered in developing effective public policy. Particular emphasis will be placed on examining the rationale for and actual impact of existing government policies, and on analyzing the likely impacts of policy alternatives.

V432 Labor Relations in the Public Sector (3 cr.) An introductory overview of labor relations in the public sector. Course includes the development, practice, and extent of the collective bargaining process and administration of the labor agreement by state and local governments.

V435 Negotiation and Alternative Dispute Resolution (1-4 cr.) This course introduces students to the theories and techniques of alternative dispute resolution. The course covers interest-based negotiation, mediation, arbitration, fact finding, early neutral evaluation, and other techniques used in business, labor relations, environmental disputes, family relations, and international affairs.

V436 Communication for Government and Nonprofit Organizations (3 cr.) This course will develop an appreciation regarding the critical nature of communication by managers in the public and nonprofit sector. It will introduce students to the skills critical to effective communication as professionals.

V441 Topics in Financial Management and Policy (3 cr.) P: SPEA V372. Various topics focusing on financial management and policy are examined in state and local settings. May be repeated for credit.

V442 Topics in Budgeting or Cost/Benefit (3 cr.) P: SPEA V372. Various topics in budgeting or cost/benefit analysis are examined. Course may be repeated for different topics.

V443 Managing Workforce Diversity (3 cr.) The composition and nature of the work force is changing. Managers must decide how to accommodate real differences among the members of their organizations. This course seeks to provide information for practitioners who hope to integrate an understanding of workforce diversity into their management style and professional behavior.

V444 Public Administrative Organization (3 cr.) A review of research findings and analysis of the operation of public agencies and their performance.

V447 Federal Budget Policy (3 cr.) Examination of the institutions and processes involved in putting together the annual federal budget, with emphasis on the role of the Appropriations and Budget Committees in Congress and on the White House and the Office of Management and Budget in the executive branch. Selected major policy areas will be considered.

V449 Policy Senior Seminar (3 cr.) P: SPEA V348. Discussion of the role of policy analysts in government. Applications of analytical tools to substantive policy areas such as transportation, community development, education, poverty, manpower, and health.

V450 Contemporary Issues in Public Affairs (1-3 cr.) Extensive analysis of selected contemporary issues in public affairs. Topics vary from semester to semester. May be repeated for credit.

V451 Social Policy and the Aging (3 cr.) A focused examination of government and the elderly. Public policy and administration of income, health, housing, employment, and social service programs, as well as analysis of the context of aging policy.

V456 Topics in Public Law (3 cr.) Extensive analysis of selected contemporary issues in public law. Topics vary from semester to semester. May be repeated for credit.

V457 Management Science in the Public Sector (3 cr.) P: SPEAV348, CSCI C211, and SPEA K300. An intermediate treatment of management science

methods with primary application to public managerial decision support. Topics include network analysis, queuing, simulation, and others. Computer-based analysis is emphasized.

V458 Fund Development for Nonprofit Organizations (3 cr.) Course builds an understanding of the practice, philosophy, law, and theory of fundraising. Students establish an organization's value base and mission, prepare funding appeals, evaluate readiness for a campaign, assess funding sources, implement fundraising vehicles, evaluate effectiveness, and discuss stewardship of contributions.

V460 Federalism, Intergovernmental Relations and Management (3 cr.) Overview of the dynamics of multi-organizational governance in the United States. Examination of federal and other systems. Structure and operations of intergovernmental programs and the role of managers within these systems.

V461 Computer Applications in Public Affairs (3 cr.) P: BUS K201. This course is designed to provide students with the essentials of computer hardware and software needed to operate effectively in a public sector environment. The course will emphasize public sector applications using software packages or microcomputers and minicomputers.

V462 Community Development (3 cr.) The process and outcomes of local citizen-based efforts to improve social, economic, and cultural conditions. Interaction of public and nonprofit sectors in community revitalization. Experiences, cases, and problems involving both rural and urban settings.

V463 Interpersonal Relations in the Workplace (1-4 cr.) Key interpersonal skills will be modeled through a variety of media and experiences. Students will practice these skills and receive feedback. Students will be expected to participate in structured experiences designed to give them insight into their behavior and how it will affect their ability to achieve personal and professional objectives.

V465 Geographic Information Systems for Public and Environmental Affairs (3 cr.) P: SPEA V261 and V369. Students will learn the concepts, methodologies, and perspectives essential for using geographic information systems (GIS) to address critical public affairs issues. Through course projects, students will learn how to use desktop and Internet-based GIS applications, and will develop complementary skills related to designing and implementing GIS applications for public-sector organizations.

V470 Community Development Workshop (3 cr.) This course will be conducted as an undergraduate research workshop. The focus will be on community development problems, such as long-range planning, the delivery of government services, or local economic development. The research topic of the course will change each year, and will be announced the preceding semester.

V471 Urban Management Systems (3 cr.) P: SPEA V348 and senior standing. This course is designed to extend the student's skill in applying a variety of qualitative and quantitative methods to the problems of urban government planning and management.

V472 Policy Processes in the United States (3 cr.) P: senior standing. Intended as an integrative senior course, primarily for SPEA students. Course content includes analytical perspectives of the policy process, the centers of policy, and the public interest. Selected cases involving problem analysis and decision making on public issues are included, as well as discussion of current policy issues.

V473 Management Applications Seminar (3 cr.) The purpose of this seminar is to provide students with an opportunity to apply the techniques they have learned to an actual situation. Special attention will be paid to feasible, as contrasted to desirable, solutions. Emphasis will be given to the contextual factors involved in developing feasible solutions.

V475 Database Management Systems (3 cr.) P: SPEA V261, V369, or equivalent. Students learn contemporary theories and methodologies regarding design, use, and management of database systems among public-sector organizations. The course provides hands-on experience with tools such as entity-relationship diagrams, query languages, database management software; and an understanding of critical database management issues such as security, backup, and recovery.

V490 Directed Research in Public and Environmental Affairs (0-3 cr.) To be arranged with the individual instructor and approved by the chairperson of the undergraduate program. May be repeated for credit.

V491 Honors Research in Public and Environmental Affairs (1-3 cr.) P: approval of instructor and SPEA honors advisor. Restricted to students in the SPEA Honors Program. May be repeated for credit.

V499 Honors Thesis (3 cr.) Required of seniors in the Honors Program. Research and paper to be arranged with individual instructor and approved by the campus SPEA Honors Program director. May be repeated for credit.

Graduate Programs

The School of Public and Environmental Affairs offers degree programs that range from the associate degree to the Ph.D. The IUPUI campus offers three professional master's degrees for individuals interested in leadership positions in public, private and nonprofit organizations:

Master of Public Affairs (M.P.A.)
Master of Health Administration (M.H.A.)
Master of Planning (M.Pl.)

The M.P.A. is a professional degree structured around the concepts and skills essential to management, policy, and planning activities within governmental and quasi-governmental organizations. The M.H.A. provides a broad, balanced foundation of theoretical and practical knowledge and technical skills needed to succeed in health administration and health policy and planning. The M.Pl. prepares students to address social, physical, and economic problems in a systematic and creative way. Additionally, master's

degrees may be pursued in combination with degrees in law, business, nursing and philanthropy.

The School of Public and Environmental Affairs offers a variety of graduate degrees and certificate programs.

Graduate Degrees

Master of Public Affairs (M.P.A.)

Master of Health Administration (M.H.A.)

Master of Planning (M.Pl.)

Joint Degree Programs

Master of Health Administration—Doctor of Jurisprudence (M.H.A.—J.D.)

Master of Health Administration—Master of Business Administration (M.H.A.—M.B.A.)

Master of Health Administration—Master of Science in Nursing (M.H.A.—M.S.N.)

Master of Public Affairs—Doctor of Jurisprudence (M.P.A.—J.D.)

Master of Public Affairs—Master of Arts in Philanthropic Studies (M.P.A.—M.A.)

Master of Public Affairs—Master of Science in Nursing (M.P.A.—M.S.N.)

Graduate Certificates

Certificate in Hazardous Materials Management

Certificate in Health Systems Management

Certificate in Nonprofit Management

Certificate in Public Management

Degrees and Concentrations

M.P.A.

Criminal Justice
Environmental Management
Nonprofit Management
Policy Analysis
Public Management
Urban Management

M.H.A.

Health Administration

M.Pl.

Environmental Planning
Health Planning
Urban Development Planning
Specialized Concentration in Planning and Public Policy

Contact Us:

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Indianapolis, IN 46202-5152
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www.spea.iupui.edu

Admissions

Procedure

Application Information about graduate study, including literature and application materials, may be obtained from the School of Public and Environmental Affairs offices listed in the previous section of this bulletin.

Eligibility For most programs, applicants with bachelor's degrees in any field from an accredited institution are eligible to apply for admission to the graduate programs of the School of Public and Environmental Affairs.

Application Submission Applicants should apply to a degree or certificate program and request financial assistance as early as possible before the desired semester of enrollment. Deadlines for applying for admission and for financial assistance may vary across campuses.

Admission Each application for admission is carefully evaluated by the admissions committee for the appropriate degree. Applicants to all SPEA degree programs must do the following:

1. Submit applications to the graduate program office on the campus where the applicant intends to matriculate.
2. Submit complete official transcripts from all colleges and universities attended. Students who have taken course work on any Indiana University campus do not need to submit an Indiana University transcript.
3. Pay a nonrefundable application fee to Indiana University.
4. Submit three Application Reference Forms completed by individuals familiar with the applicant's activities and potential to succeed in graduate work. These forms are included in the application packet.
5. Read carefully the applicable sections in this bulletin for any specific program or campus admission requirements.
6. Submit proof of bachelor's degree certification from an accredited institution. Students who have not completed undergraduate course work at the time of application may be admitted based on the strength of previous work, but a final transcript attesting to the award of a bachelor's degree must be submitted before the student can enroll.

LSAT and GRE Requirements Applicants for the M.P.A.–J.D. degree may submit LSAT or GMAT (Law School Admission Test or Graduate Management Admission Test) scores in lieu of GRE (Graduate Record Examination) scores. Other degrees require the GRE. Information concerning the GRE is available from Graduate Record Examination, Educational Testing Service, P.O. Box 6000, Princeton, NJ 08541, (609) 771-7670. Information concerning the LSAT is available from Law School Admission Services, P.O. Box 2000, Newtown, PA 18940, (215) 968-1001.

Admission Status

Regular (Unconditional) Admission Status Applicants with this status have met all admission requirements for the specific degree program and may enroll in accordance with the entry date contained in the application for admission.

Deferred Admission Following notice of regular admission, applicants may defer enrollment for a

maximum of one year. Transcripts of course work completed during the deferral period must be submitted, and the admissions committee may request additional letters of recommendation. Should the additional material prove unsatisfactory, the admission may be canceled. Applicants who fail to enroll within one year may need to re-apply for admission.

Provisional Admission On some campuses, applicants may be admitted on a provisional basis if GRE or LSAT scores or prior grade point averages are below admission criteria. Provisional status is removed upon fulfillment of conditions stipulated by the respective degree program admissions committee.

Admission with Deficiencies Applicants may be admitted with deficiencies on a case-by-case basis if they lack course work in certain foundation areas such as mathematics, economics, or statistics. Campus and degree policies may vary.

Nondegree Enrollment Applicants who have a bachelor's degree and who have not been admitted to the graduate program may enroll in SPEA courses as nondegree graduate students. Procedures may vary across campuses.

If nondegree students later wish to obtain SPEA graduate degrees, they must apply for admission to the specific degree program.

Academic Regulations

The following academic regulations of the School of Public and Environmental Affairs are applicable to all graduate programs. Additional campus-specific policies also may apply.

Confidentiality of Student Records In accordance with Indiana University regulations, student records are confidential and are available to other persons only under specific conditions as outlined in university regulations.

Student Rights Rights of students are included in a handbook available on each campus. Due process is followed in the event of disciplinary or other actions.

Student Responsibility Students are responsible for planning their own academic programs and for meeting the requirements for their degree or certificate programs. Faculty and academic advisors may assist students in meeting their responsibilities.

Applicability of Degree and Certificate

Requirements Students may choose to complete either the specific degree and certificate requirements published in the appropriate bulletin at the time of entry into the university or those in the bulletin current at the time of graduation.

Residency Requirements—Master's and

Certificate Programs The campus at which a student completes the majority of required course work will certify and award the degree or certificate, provided the campus is authorized to grant that degree or certificate. The student must have been admitted by the SPEA campus awarding the degree or certificate.

Academic Standing Students are considered to be in good standing during any semester in which their academic grade point average is at least 3.00 (B) both for their last semester's course work and for the cumulative average of all course work completed.

Only courses with grades of C (2.00) or above may be counted toward degree requirements. However, grades below C are used in computing the cumulative grade point average, even if a course is repeated and a higher grade is earned.

Academic Probation Students are placed on probation following a semester in which their cumulative or semester grade point average falls below 3.00. Students on probation or admitted provisionally are required to attain an average of at least 3.00 for all work completed by the end of the next semester of full-time enrollment or its equivalent (12 credit hours). Failure to do so is cause for dismissal.

Grading System SPEA follows the official grading system of Indiana University described in the introductory section of the bulletin.

Incomplete A grade of Incomplete must be removed within the time specified by the instructor of the course; if not, the grade automatically changes to an F one calendar year after the Incomplete was given.

Withdrawals Because deadlines for withdrawal from courses may vary by campus and/or school, students should check with the current campus *Schedule of Classes* to verify deadlines and procedures.

Intercampus Transfer Students enrolled in the School of Public and Environmental Affairs at any campus of Indiana University may transfer to SPEA on another campus, provided they are in good standing.

Transfer of Credit A maximum of 9 credit hours of appropriate graduate course work with grades of B (3.00) or better (only 6 credit hours for the M.H.A. program) may be transferred from degree programs of other academic units within Indiana University or other accredited colleges and universities and applied to SPEA master's-level degree programs. The transfer must be approved by the appropriate graduate program director.

Course Waivers Requests for waiver of specific courses or requirements on the basis of previous course work are to be submitted in writing to the appropriate faculty member or program director.

Program Deviations Requests for deviation from SPEA programs or school requirements are granted only with written approval from an academic advisor and a campus or program director. Disposition by the SPEA program or campus director is final.

Minimum Credit Hours To qualify for the M.P.A. or M.Pl. degrees, students must complete a minimum of 24 of the required 48 credit hours of graduate SPEA courses at Indiana University. Credit granted to transfer students and those exercising the mid-career option does not reduce the number of courses taken in SPEA below this 24-credit-hour minimum.

Credit Earned in Nondegree Status Not more than 12 hours of graduate credit completed as a nondegree student may be credited toward a SPEA graduate degree. Not more than 9 hours of SPEA graduate credit earned as a nondegree student may be credited toward SPEA certificate programs.

Academic Integrity Academic integrity requires that students take credit only for their own ideas and efforts. Misconduct, including cheating, fabrication, plagiarism, interference, or facilitating academic

dishonesty, is prohibited because it undermines the bonds of trust and cooperation among members of this community and between us and those who may depend on our knowledge and integrity. Complete details are contained in the Indiana University *Code of Student Rights, Responsibilities, and Conduct*.

Academic Appeals Students may appeal academic decisions made by SPEA faculty members. Attempts to resolve such issues should be made first at the class/instructor level. If necessary, written appeals should be submitted to relevant program directors. Appeals must be submitted before the last day of classes in the semester following the point at which the events in question occurred.

Master of Public Affairs (M.P.A.)

Professional managers in the public and nonprofit sectors constantly face challenges evolving from complex people, politics, and settings. Often difficult to resolve with the standard methods learned from a traditional academic focus, these challenges require the type of creative problem-solving for which the School of Public and Environmental Affairs has earned national respect. We meld social and physical sciences from various disciplines into a graduate education that requires and prepares students to be in tune with the diverse landscape of changing ideas, culture, policies, and problems our society faces today and will continue to face in the future.

The M.P.A. is designed to develop leaders for public agencies and nonprofit organizations and allows for expertise in one of these concentrations: criminal justice, environmental management, nonprofit management, policy analysis, public management, and urban management. Each course of study requires completion of the core requirement, the concentration requirement, the experiential requirement, and sufficient electives and/or mid-career option credit to total 48 credit hours.

The core requirements of the M.P.A. degree consist of 21 credit hours of work in nine courses. The experiential requirement ensures that each graduate of the M.P.A. program gains insight into the world of public service through an experience outside the classroom. Additionally, the completion of at least one concentration is required along with general electives that can be used to add breadth to a student's program; to further explore the field of concentration; or to enhance quantitative and analytical skills or administrative techniques.

Degree Requirements

(48 credit hours)

Before enrolling in the M.P.A. program, students must show proficiency in the foundation areas of computing, economics, government, mathematics, and statistics to facilitate mastery of core course material. Graduate credit is not given for work done to satisfy these undergraduate requirements.

The core requirements of the M.P.A. degree consist of 21 credit hours of work in nine courses and are common to the five campuses where this degree is offered. Each student must complete the requirements of at least one concentration.

The experiential requirement ensures that each graduate of the M.P.A. program has gained insight into the world of public service by way of an experience outside the classroom. This experience may or may not involve the accumulation of credit hours toward the degree. The remaining credit hours necessary for graduation, if any, are general electives that can be used to add breadth to a student's program; to further explore a field of concentration; or to enhance skills in foreign languages, quantitative tools, or administrative techniques.

Core Requirements

(21 credit hours)

The M.P.A. core is designed to ensure that each student acquires both the prerequisite analytical skills and an understanding of policy issues and governmental processes that compose the environment within which graduates will pursue their careers.

Required Courses

SPEA V501 Professional Development Practicum:
Information Technology (1 cr.)

SPEA V502 Public Management (3 cr.)

SPEA V503 Professional Development Practicum:
Writing and Presentation (1 cr.)

SPEA V505 Professional Development Practicum:
Teamwork and Integrated Policy Project (1 cr.)

SPEA V506 Statistical Analysis for Effective Decision
Making (3 cr.)

SPEA V517 Public Management Economics (3 cr.)

SPEA V540 Law and Public Affairs (3 cr.)

SPEA V560 Public Finance and Budgeting (3 cr.)

SPEA V600 Capstone in Public and Environmental
Affairs (3 cr.)

Extremely well-prepared applicants may petition the program director to waive one or more of the core requirements on the basis of advanced course work done elsewhere. Students may be exempted on the basis of satisfactory equivalent course work or by examination. Credit hours waived from the core add to the electives a student may use. Students requesting course waivers should contact the appropriate graduate program director for requirements and guidelines.

Concentration Requirements

(18-30 credit hours)

Concentrations give students educational experiences in a substantive area of interest. The course of study in each concentration area is determined in conjunction with an advisor. Up to 3 credit hours of the concentration may be taken in V585 Practicum in Public Affairs, if approved *in advance* by an advisor.

Concentration requirements may be waived on the same basis as core requirements. Consult an advisor about course prerequisites.

Experiential Requirements

Each M.P.A. student must obtain professionally relevant experience through one of the following options: an approved internship (0-6 credit hours); SPEA V590 Research in Public Affairs; SPEA V601 Workshop in Public Affairs; the Lilly Fellowship Program; the Environmental Fellowship Program; or the Mid-Career Credit Option.

Mid-Career Credit Option

The Graduate Admissions Committee of the School of Public and Environmental Affairs may grant up to 12 credit hours toward the Master of Public Affairs (M.P.A.) degree for students who have had **significant technical, administrative, or policy-level work experience** in their backgrounds. Credit will be granted for work experience gained until the end of the semester in which the student completes 24 credit hours according to the following guidelines as adopted by the SPEA Academic Council.

1. To receive 3 credit hours, a student must have a minimum of one year's technical, administrative, or policy-level work experience with a government or private agency. Experience should be in policy planning and direction.
2. 6 credit hours will be awarded for one to four years of managerial experience in directing programs, preparing budgets, and making decisions on organizational or staff development, or for one to four years of professional experience in policy analysis or planning.
3. Those with four or more years of executive assignment may be awarded 9-12 credit hours. Applicants must have had responsibility for supervision of high-level staff, budget preparation, and organizational control of public agencies, or executive responsibility for policy analysis or planning.

Mid-Career Credit Option Application Process and Policies

Students are eligible to apply for Mid-Career credit at the time of application or during the first semester of graduate study in order to take full advantage of available credit. Applicants may appeal the initial Mid-Career credit decision by submitting a request, in writing, for reconsideration and providing additional information to the appropriate program or campus director.

Determination of Mid-Career credit is made separately from decisions about transfer of credit. Under no circumstances will the Mid-Career credit and transfer credit total more than 21 hours of the 48 required for the degree. Students receiving Mid-Career credit should carefully plan the balance of their program with an advisor.

General Elective Courses

Graduate courses, or undergraduate courses approved for graduate credit, may be used to complete the overall degree requirement of 48 credit hours.

Fields of Concentration

Concentrations give students a focused educational experience in a substantive area of interest. The concentration is selected in conjunction with a faculty advisor and the appropriate SPEA administrator. Concentrations include criminal justice, environmental management, nonprofit management, policy analysis, public management, and urban management.

Criminal Justice Concentration

(18 credit hours)

The criminal justice concentration is for those interested in the issues, methods, and skills involved in the management of criminal justice or related

agencies. Students are required to take a minimum of 9 "J" credit hours for this concentration.

Required Courses (12 credit hours):

- SPEA J501 Evolution of Criminological Thought and Policy (3 cr.)
- SPEA J502 Research Methods in Criminal Justice and Public Affairs (3 cr.)
- SPEA V509 Administrative Ethics in the Public Sector (3 cr.)

One of the following:

- SPEA J666 Criminal Justice Policy and Evaluation (3 cr.)
- SPEA J682 Criminal Justice Planning and Management (3 cr.)

Electives (6 credit hours):

Two courses from one of the following groups:

Group A:

- SPEA J550 Topics in Criminal Justice (3 cr.)
- SPEA J582 Criminal Justice Systems (3 cr.)
- SPEA J587 Criminal Violation: Problems and Characteristics (3 cr.)
- SPEA J588 Law and Control in Society (3 cr.)
- SPEA V580 Readings in Public Affairs (criminal justice topics only) (3 cr.)
- SPEA V585 Practicum in Public Affairs (criminal justice topics only) (3 cr.)
- SPEA V685 Research Seminar in Public Affairs (criminal justice topics only) (3 cr.)

Group B:

Management, Organizations, and Policy

- SPEA H507 Management of Individual and Group Behavior (3 cr.)
- SPEA J550 Topics in Criminal Justice (1-3 cr.)
- SPEA V504 Public Organizations (3 cr.)
- SPEA V512 Public Policy Process (3 cr.)
- SPEA V539 Management Science for Public Affairs (3 cr.)
- SPEA V547 Negotiation and Dispute Resolution for Public Affairs (3 cr.)
- SPEA V561 Public Human Resources Management (3 cr.)
- SPEA V562 Public Program Evaluation (3 cr.)
- SPEA V564 Urban Management (3 cr.)
- SPEA V566 Executive Leadership (3 cr.)
- SPEA V569 Managing Interpersonal Relations (3 cr.)
- SPEA V570 Public Sector Labor Relations (3 cr.)

Nonprofit Management

- SPEA V522 Human Resource Management in Nonprofit Organizations (3 cr.)
- SPEA V525 Management in the Nonprofit Sector (3 cr.)

Finance

- SPEA V541 Benefit-Cost Analysis of Public and Environmental Policies (3 cr.)
- SPEA V542 Governmental Financial Accounting and Reporting (3 cr.)

Information Systems

- SPEA V516 Public Management Information Systems (3 cr.)
- SPEA V518 Intergovernmental Systems Management (3 cr.)
- SPEA V519 Database Management Systems (3 cr.)
- SPEA V550 Topics in Public Affairs (non-criminal justice topics) (3 cr.)

Other courses must be approved by a faculty advisor.

Environmental Management Concentration

(21 credit hours)

Students entering this concentration should have a working knowledge of chemistry and calculus prior to admission. The minimum level of competence needed is equivalent to two semesters of undergraduate chemistry and one semester of calculus.

Required Courses (9 credit hours):

- SPEA E526 Applied Mathematics for Environmental Science (3 cr.)
- SPEA E552 Environmental Engineering (3 cr.)
- SPEA V645 Environmental Law (3 cr.)

Electives (12 credit hours):

Four of the following courses or other 500-level or above environment-related courses approved by a concentration advisor.

- SPEA E431 Water Supply and Wastewater Treatment (3 cr.)
- SPEA E510 Hazardous Materials Regulation (3 cr.)
- SPEA E512 Risk Communication (3 cr.)
- SPEA E515 Fundamentals of Air Pollution (3 cr.)
- SPEA E520 Environmental Toxicology (3 cr.)
- SPEA E536 Environmental Chemistry (3 cr.)
- SPEA E542 Hazardous Materials (3 cr.)
- SPEA E549 Environmental Planning (3 cr.)
- SPEA E554 Groundwater Flow Modeling (3 cr.)
- SPEA E560 Environmental Risk Analysis (3 cr.)
- SPEA E562 Solid and Hazardous Waste Management (3 cr.)
- SPEA E620 Environmental Analysis Workshop (3 cr.)
- SPEA V520 Environmental Policy Analysis (3 cr.)
- SPEA V541 Benefit-Cost Analysis of Public and Environmental Policies (3 cr.)

Nonprofit Management Concentration

(18 credit hours)

The nonprofit management concentration prepares persons for leadership positions in nonprofit and volunteer organizations. Students receive a professional degree structured around theories, concepts, and practices essential to the policy and management of nonprofit organizations. Students who choose careers in the third sector will be more enlightened practitioners with a clear understanding of modern management techniques and of the philanthropic tradition in the broadest sense; that is, voluntary action for the public good.

Required Courses (6 credit hours):

- SPEA V521 The Nonprofit and Voluntary Sector (3 cr.)
- SPEA V525 Management in the Nonprofit Sector (3 cr.)

One of the following nonprofit theoretical courses:

- SPEA V523 Civil Society and Public Policy (3 cr.)
- SPEA V524 Civil Society in Comparative Perspective (3 cr.)
- ECON E514 The Nonprofit Economy and Public Policy (3 cr.)

- HIST H509 History of Philanthropy in the West (3 cr.)
- PHIL P542 Ethics and Values of Philanthropy (3 cr.)

Other courses must be approved by the faculty advisor.

Two of the following nonprofit application courses:

- SPEA V522 Human Resource Management in Nonprofit Organizations (3 cr.)
- SPEA V526 Financial Management for Nonprofit Organizations (3 cr.)
- SPEA V550 Topics in Public Affairs: Fund Development for Nonprofit Organizations (3 cr.)
- SPEA V550 Topics in Public Affairs: Proposal Writing and Grant Administration (3 cr.)
- SPEA V602 Strategic Planning of Public and Nonprofit Organizations (3 cr.)
- EDUC C595 Legal Aspects of Philanthropy (3 cr.)

One of the following general management courses:

- SPEA H507 Management of Individual and Group Behavior (3 cr.)
- SPEA V516 Public Management Information Systems (3 cr.)
- SPEA V539 Management Science of Public Affairs (3 cr.)
- SPEA V541 Benefit-Cost Analysis of Public and Environmental Policies (3 cr.)
- SPEA V562 Public Program Evaluation (3 cr.)
- SPEA V566 Executive Leadership (3 cr.)

Policy Analysis Concentration

(17-18 credit hours)

The policy analysis concentration focuses on techniques for the rigorous evaluation of public policies and public programs, emphasizing science, operations research techniques, cost-benefit analysis, and program evaluation.

Required Courses (3 credit hours):

- SPEA V512 Public Policy Process (3 cr.)

Choose two of the following:

- SPEA H515 Seminar in Health Policy Process Special Topics (3 cr.)
- SPEA P550 Topics in Planning (public policy topics approved by an advisor) (3 cr.)
- SPEA V520 Environmental Policy Analysis (3 cr.)
- SPEA V550 Topics in Public Affairs (3 cr.) (public policy topics approved by an advisor)
- SPEA V580 Readings in Public Affairs (3 cr.)
- SPEA V622 Seminar in Urban Economic Development (3 cr.)

One of the following:

- SPEA P520 Methods for Planning and Policy Analysis (2 cr.)
- SPEA V507 Data Analysis and Modeling for Public Affairs (3 cr.)

One of the following:

- SPEA V539 Management Science for Public Affairs (3 cr.)
- SPEA V541 Benefit-Cost Analysis of Public and Environmental Policies (3 cr.)
- SPEA V562 Public Program Evaluation (3 cr.)

Research Requirement

- SPEA V590 Research in Public Affairs (3 cr.)

Students must submit a proposal for the policy analysis project and receive approval from the concentration advisor before undertaking the project. A minimum of 12 credit hours (four courses) must be completed in the policy analysis concentration before a project proposal may be approved.

Public Management Concentration

(18 credit hours)

The public management concentration is a structured program that enables students to develop a managerial perspective. The curriculum ensures breadth of coverage across those areas essential to a managerial career.

Required Courses (12 credit hours):

- SPEA H507 Management of Individual and Group Behavior (3 cr.)
- SPEA V561 Public Human Resource Management in the Public Sector (3 cr.)
- SPEA V602 Strategic Management of Public and Nonprofit Organizations (3 cr.)
- SPEA V639 Managing Government Operations (3 cr.)

One of the following:

- SPEA V516 Public Management Information Systems (3 cr.)
- SPEA V542 Governmental Financial Accounting and Reporting (3 cr.)

One of the following:

- SPEA V539 Management Science for Public Affairs (3 cr.)
- SPEA V541 Benefit-Cost Analysis for Public and Environmental Policies (3 cr.)
- SPEA V562 Public Program Evaluation (3 cr.)

Urban Management Concentration

(29-30 credit hours)

The urban management concentration prepares students for entry-level and mid-career management and policy positions in local government and nonprofit organizations.

Required Courses (9 credit hours):

- SPEA V561 Public Human Resources Management (3 cr.)
- SPEA V564 Urban Management (3 cr.)
- SPEA V567 Public Financial Administration (3 cr.)

Advanced Electives (8-9 credit hours):

Take three of the following courses. You must take two from one area and one from another area.

Area 1: Planning

- SPEA E549 Environmental Planning (3 cr.)
- SPEA P500 Foundations of Planning (3 cr.)
- SPEA P510 Social and Economic Aspects of Human Settlements (2 cr.)
- SPEA P515 Physical Systems, Development, and Infrastructure (3 cr.)
- SPEA P530 Land Use Law (3 cr.)
- SPEA V563 The Planning Process (3 cr.)
- SPEA V597 Land Use Planning (3 cr.)

Area 2: Personnel/Labor Relations

- SPEA V547 Negotiation and Dispute Resolution for Public Affairs (3 cr.)
- SPEA V570 Public Sector Labor Relations (3 cr.)

Area 3: Operations Management

- SPEA V568 Management of Urban Government Services (3 cr.)
- SPEA V639 Managing Government Operations (3 cr.)

Area 4: Analysis and Information Systems

- SPEA E529 Applications of Geographic Information Systems (3 cr.)
- SPEA P520 Methods for Planning and Policy Analysis (2 cr.)
- SPEA V507 Data Analysis and Modeling for Public Affairs (3 cr.)
- SPEA V516 Public Management Information Systems (3 cr.)
- SPEA V539 Management Science for Public Affairs (3 cr.)
- SPEA V541 Benefit-Cost Analysis of Public and Environmental Policies (3 cr.)
- SPEA V562 Public Program Evaluation (3 cr.)
- SPEA V593 Analytic Methods in Planning and Policy Analysis (3 cr.)
- SPEA V662 Seminar in Productivity and Program Evaluation (3 cr.)

Area 5: Government Finance

- SPEA V542 Governmental Financial Accounting and Reporting (3 cr.)
- SPEA V609 Seminar in Revenue Theory and Administration (3 cr.)
- SPEA V610 Seminar in Government Budget and Program Analysis (3 cr.)
- SPEA V667 Seminar in Public Capital and Debt Theory (3 cr.)

Area 6: Development

- SPEA P540 Community and Neighborhood Development Planning (3 cr.)
- SPEA V550 Topics in Public Affairs: Community Development (3 cr.)
- SPEA V622 Seminar in Urban Economic Development (3 cr.)

Other courses approved by the faculty advisor.

Area 7: Nonprofit Management

- SPEA V518 Intergovernmental Systems Management (3 cr.)
- SPEA V521 The Nonprofit and Voluntary Sector (3 cr.)
- SPEA V522 Human Resource Management in Nonprofit Organizations (3 cr.)
- SPEA V525 Management in the Nonprofit Sector (3 cr.)

Area 8: Policy Issues and Analysis

- SPEA E562 Solid and Hazardous Waste Management (3 cr.)
- SPEA V550 Topics in Public Affairs: Urban Poverty (3 cr.) or other topics approved by the faculty advisor.

Urban Management Internship and Seminar (12 credit hours)

- SPEA V585 Practicum in Public Affairs (9 cr.)

Compensated internship in local government to be served during the fourth semester.

- SPEA V623 Seminar in Urban Management (3 cr.)

Seminar served in conjunction with urban management internship. This seminar normally will substitute for the V600 capstone requirement in the M.P.A. core.

Master of Health Administration (M.H.A.)

The graduate program in health administration is offered by the School of Public and Environmental Affairs, the country's largest school of public affairs. Recognized for its outstanding faculty, professional integration, and strong business ethics, the Indianapolis program reflects the exciting frontiers of the contemporary health care industry.

This advanced program attracts professionals and students interested in a variety of leadership opportunities in hospitals, managed care, ambulatory care, and voluntary health agencies. Opportunities also exist in consulting firms, corporate health programs, insurance, government, and other regulatory agencies. The program is fully accredited by the Accrediting Commission on Education for Health Services Administration and is a member of the Association of University Programs in Health Administration.

Approximately one-third of the students in the program have professional backgrounds; the remaining two-thirds come directly from undergraduate programs. In the classroom, this mix creates a dynamic environment of fresh perspectives and practical experience. The versatile faculty teach a rigorous interdisciplinary curriculum interwoven with current research and events. The M.H.A. program is comprised of 51 graduate semester credit hours.

A summer internship between the first and second year of study is an excellent opportunity to learn from a health industry leader. The internship offers students valuable experience in the health care field and is an excellent opportunity to blend academic preparation with hands-on experience. Positions are available throughout the United States.

As an option, students may choose an Administrative Residency, a 10-12 month paid residency that can assist in the transition from classroom to workplace through intensive exposure to a selected management career. It blends academic preparation with administrative practice. Students with little health administration experience may find the residencies beneficial. Residents are selected through competitive application processes.

A Mentorship Program utilizing local M.H.A. alumni and friends of the school gives students the opportunity to meet a variety of practicing health care professionals. Mentors are available in all segments of the health care field, and range from recent graduates to corporate officers and senior public officials.

Some students become involved as research assistants at the Bowen Health Research Center and the Center for Urban Policy and the Environment. These are IU's leaders in health policy and services research. The Bowen Center is a joint endeavor of the School of Medicine and the School of Public and Environmental Affairs.

Increasingly, our students are successfully competing for national administrative fellowships after graduation. Recent fellowships awarded to M.H.A. program graduates include: Good Samaritan Health

System in Nebraska, Winston Fellowship and Washington Hospital Group in Washington, D.C., and the American College of Healthcare Executives in Chicago. Most fellowships provide a two-year paid administrative experience and lead to permanent employment.

Admissions

In addition to the general requirements for admission to graduate study in the School of Public and Environmental Affairs, the following requirements generally must be met for admission to the Graduate Program in Health Administration:

1. Applicants must possess an undergraduate degree from an accredited institution and have a minimum overall undergraduate grade point average (GPA) of 3.0 (B) on a 4.0 scale. Applicants with a minimum GPA of 3.0 during the last half of their undergraduate education are shown preference.
2. Applicants must complete at least 3 credit hours each of undergraduate courses in introductory accounting, microeconomics, and statistics at an accredited institution with a minimum grade of C in each course. Students who have not completed these courses but who meet all other requirements may be accepted with deficiencies. These students are not usually permitted to enroll in the classes that require these courses as prerequisites until the deficiencies are removed.
3. Applicants must take the Graduate Record Examination (GRE) and achieve a composite score of at least 1,500 total in all three sections. An applicant with a GRE score lower than 500 in any section may be required to participate in special academic counseling and evaluation prior to any admission decision. Additional course work may be required, and admission as a provisional student may be stipulated. Applicants who have been awarded an advanced degree may petition the admissions committee for waiver of the GRE requirement.

Mid-Career Credit Option

Students in the Master of Health Administration can receive Mid-Career credit for work experience obtained up through the semester in which they complete 24 credits toward the Master of Health Administration degree. The credits are to be awarded as follows:

3 credit hours – for a least one year of meaningful work experience in health administration.

6 credit hours – for two to four years of meaningful work experience in health administration.

9 credit hours – for four or more years of meaningful work experience in health administration.

Students may apply for the Mid-Career credit option upon application to the program or may seek the credits any time up to graduation. The admission committee will have the responsibility to evaluate each student request and determine if the work experience meets the requirements for the credit hours requests.

Degree Requirements

(51 credit hours)

A minimum of 51 credit hours, divided between required and elective courses, is required in the

Master of Health Administration degree program. The M.H.A. curriculum begins with a foundation of theory and skill-building courses and makes a transition to course work that requires practical application of those skills in a variety of health care settings.

Part-time students must complete at least 6 credit hours each semester to remain in good standing. All students must complete the program's academic requirements within five calendar years of matriculation.

Required Courses (45 credit hours):

SPEA H501 U.S. Health Care: Systems, Policies, and Ethical Challenges (3 cr.)
 SPEA H502 Developing Strategic Capability in Health Care (3 cr.)
 SPEA H507 Management of Individual and Group Behavior (3 cr.) **or**
 SPEA V504 Public Organizations (3 cr.) *with permission*
 SPEA H508 Managing Health Care Accounting Information for Decision Making (3 cr.)
 SPEA H509 Financial Management Principles of Health Care (3 cr.)
 SPEA H510 Health Services Financial Management (3 cr.)
 SPEA H514 Health Economics (3 cr.)
 SPEA H516 Health Services Delivery and the Law (3 cr.)
 SPEA H518 Statistical Methods for Health Services (3 cr.)
 SPEA H521 Management Science for Health Services Administration (3 cr.) **or**
 SPEA V539 Management Science for Public Affairs (3 cr.) *with permission*
 SPEA H615 Health Care Outcomes and Decision Making (3 cr.)
 SPEA H623 Health Care Applications of Strategic Management (3 cr.)
 SPEA H628 Health Care Information Systems (3 cr.)
 SPEA H650 Strategies for Career Preparation (1.5 cr.)
 BUS M540 Service Marketing (1.5 cr.)

One of the following courses:

SPEA H700 Residency (3-6 cr.) **or**
 SPEA H702 Internship in Health Services Management (3 cr.) **or**
 SPEA H735 Research in Health Administration (3-6 cr.)

Electives (6 credit hours)

Choose two of the following elective courses, or other electives approved by a faculty advisor:

SPEA H515 Seminar in Health Policy: Special Topics (3 cr.)
 SPEA H517 Managerial Epidemiology (3 cr.)
 SPEA H626 Health Services Human Resources Management (3 cr.)
 SPEA H627 Seminar in Advanced Health Finance (3 cr.)
 SPEA H630 Readings in Health Services Administration (3 cr.)
 SPEA V541 Benefit-Cost Analysis (3 cr.)
 BUS A508 Not-for-Profit Accounting (3 cr.)

Course Waivers, Substitutions, and Challenge Examinations

Students may petition the program director to waive or make substitutions for required courses based on completion of satisfactory equivalent course work or

by examination (if available). The following guidelines govern the consideration of these types of petitions.

Waivers of Required Courses The requirement for a particular course may be waived if the student furnishes evidence of equivalent graduate course work completed within a reasonable period of time from an accredited institution. It should be noted that credit is not given with a waiver—only an exemption from a particular course; another course is always substituted.

Substitutions As a general rule, the substitution of a course for one that is required in the M.H.A. curriculum is prohibited. On rare occasions, petitions for substitutions may be considered, and students who believe they would benefit from such a procedure should discuss the matter with their advisors.

Challenge Examination Students who believe they possess mastery of the subject matter stipulated in a given required course may request a challenge examination. If, in the opinion of the faculty, the student has demonstrated the requisite knowledge, academic credit for the course is authorized. The university fee structure for the cost of such an examination applies.

Master of Planning (M.Pl.)

The Master of Planning (M.Pl.) is a professional degree program that prepares students for professional careers in planning and related fields. The program emphasizes the development of professional skills to enable graduates to develop successful careers in planning. The emphasis is always on gaining the knowledge and tools to provide the foundation for professional practice. The program is hands-on, applied, and professional. Students in the planning workshop focus on real planning problems for outside clients, developing their ability to function as effective professionals.

Indianapolis is nationally recognized for its achievements in urban development. Students in the Master of Planning program have the opportunity to use this major metropolitan area as a laboratory to learn planning. The planning faculty bring their experience working in Indianapolis and central Indiana to the classrooms, integrating this practical knowledge into the learning experience.

The School of Public and Environmental Affairs and the faculty of the Master of Planning program are associated with the Center for Urban Policy and the Environment. The center consults with public, nonprofit, and private clients and is engaged in a major effort to enhance policy discussions in the central Indiana region. The wide-ranging studies of the region include a focus on understanding and improving the planning process and the development of a large-scale computer simulation model of urban development in the region. Students in the Master of Planning program have the opportunity to participate in and learn from the innovative research under way at the Center for Urban Policy and the Environment.

The Master of Planning program is offered within the largest school of public affairs in the United States. Students in the program have the opportunity to draw

upon the school's strengths in public management and policy, environmental science and policy, and health administration.

Mid-Career Credit Option

Students in the Master of Planning Program can receive Mid-Career credit for work experience obtained up through the end of the semester in which they complete 24 credits toward the Master of Planning degree. Decisions on the credits to be awarded for work experience are made by the Master of Planning Admissions Committee. The guidelines for eligibility for credit are as follows:

3 credit hours – for at least one year of work experience in planning or a related field such as policy analysis or public management.

6 credit hours – for two to four years of work experience in planning or a related field that includes primary responsibility for the preparation of plans, or similar levels of responsibility in related fields.

9 credit hours – for four or more years of work experience in planning or a related field that includes responsibility for the organization of the planning process and the supervision of other planners in the preparation of plans, or similar levels of responsibility in related fields.

12 credit hours – for eight or more years of work experience in planning or a related field that includes overall responsibility for the planning function in a major organization, or similar levels of responsibility in related fields.

Admissions

In addition to the general requirements for admission to graduate study in the School of Public and Environmental Affairs, students entering the Graduate Program in Planning are expected to have completed introductory undergraduate courses in statistics and microeconomics at an accredited institution with a minimum grade of B in each course. Students lacking this preparation may be admitted with deficiencies. These students are expected to remedy any deficiencies before taking courses in which this background is required.

Degree Requirements

(48 credit hours)

The Graduate Program in Planning requires a minimum of 48 graduate credit hours and the completion of: (1) the core requirement, (2) the concentration requirement, and (3) the experiential requirement. The core requirement consists of 22 credit hours of work in nine courses and is required of all students pursuing the M.Pl. degree. Each student must complete the requirements of one concentration, which consists of 11-15 credit hours of course work, depending on the concentration and courses selected. The experiential requirement ensures that each graduate of the M.Pl. program has gained relevant professional planning practice outside the classroom. This experience may or may not involve the accumulation of credit hours toward the degree. The remaining credit hours necessary for graduation are general electives that can be used to add breadth to a student's program, to further explore a field of concentration, or to enhance skills in quantitative tools or other techniques.

Core Requirement

(22 credit hours)

The core requirement in the Graduate Program in Planning ensures that each student acquires an understanding of the field of planning and its practice, of the environment in which planning takes place, and of the analytical methods necessary for the practice of planning. The core requirement also provides for the integration of learning and professional practice in workshop and seminar settings.

SPEA P500 Foundations of Planning (3 cr.)
 SPEA P510 Social and Economic Aspects of Human Settlement (2 cr.)
 SPEA P515 Physical Systems Development and Infrastructure (3 cr.)
 SPEA P520 Methods for Planning and Policy Analysis (2 cr.)
 SPEA P525 Geographic Information Systems for Planning (2 cr.)
 SPEA P600 Portfolio Assessment (1 cr.)
 SPEA P610 Planning Workshop (3 cr.)
 SPEA V506 Statistical Analysis for Effective Decision Making (3 cr.)

One of the following:

SPEA V517 Public Management Economics (3 cr.)
 SPEA V541 Benefit-Cost Analysis of Public and Environmental Policies (3 cr.)

Students in the health planning concentration may elect to substitute SPEA H514 Health Economics (3 cr.) for the above requirement.

All students are required to assemble a portfolio of work completed in various courses taken as a part of the degree program. Students will evaluate this work and present their evaluations to the faculty in P600 Portfolio Assessment.

Especially well-prepared applicants may petition the director of the Graduate Program in Planning to waive one or more of the core requirements on the basis of advanced course work done elsewhere. Students may be exempted on the basis of satisfactory course work or by examination. Credit hours waived from the core increase the number of electives a student may take. Students requesting course waivers should contact the program director for requirements and guidelines.

Concentration Requirements

(11-15 credit hours)

The concentrations are designed to give the student the opportunity to focus on study in a specialized area of planning. Concentration requirements may be waived on the same basis as core requirements. The concentrations available in the Graduate Program in Planning are as follows:

Environmental Planning Concentration

(11-12 credit hours)

The environmental planning concentration is intended for students interested in planning that deals with the problems of the natural environment.

The following course:

SPEA E549 Environmental Planning (3 cr.)

One of the following courses:

SPEA P530 Land Use Law (3 cr.)
 SPEA V645 Environmental Law (3 cr.)

Two of the following courses:

SPEA E431 Water Supply and Wastewater Treatment (3 cr.)
 SPEA E510 Hazardous Materials Regulation (3 cr.)
 SPEA E515 Fundamentals of Air Pollution (3 cr.)
 SPEA E520 Environmental Toxicology (3 cr.)
 SPEA E542 Hazardous Materials Control (3 cr.)
 SPEA E552 Environmental Engineering (3 cr.)
 SPEA E554 Groundwater Flow Modeling (3 cr.)
 SPEA E560 Environmental Risk Analysis (3 cr.)
 SPEA E562 Solid and Hazardous Waste Management (3 cr.)
 SPEA P527 Planning Applications of Geographic Information Systems (2 cr.)

Health Planning Concentration

(15 credit hours)

The health planning concentration is intended for students interested in planning that deals with the problems of the health care system and the provision of health services. The requirements for the concentration are as follows:

SPEA H501 U.S. Health Care: Systems, Policies, and Ethical Challenges (3 cr.)
 SPEA H502 Developing Strategic Capability (3 cr.)
 SPEA H514 Health Economics (3 cr.)
 SPEA H516 Health Services Delivery and the Law (3 cr.)

One of the following courses:

SPEA H515 Seminar in Health Policy: Special Topics (3 cr.)
 SPEA H615 Health Care Outcomes and Decision Making (3 cr.)

Students in the health planning concentration who elect to take SPEA H514 Health Economics to satisfy the requirement in the core shall be required to take one additional health planning-related course, to be selected in consultation with their advisor.

Urban Development Planning Concentration

(11-12 credit hours)

The urban development planning concentration is for students interested in planning that deals with the problems of urban areas, including general urban planning, neighborhood and community development, housing, and economic development.

The following three courses:

SPEA P530 Land Use Law (3 cr.)
 SPEA V560 Public Finance and Budgeting (3 cr.)
 SPEA V597 Land Use Planning (3 cr.)

One of the following courses:

SPEA P527 Planning Applications of Geographic Information Systems (2 cr.)
 SPEA P532 Site Planning and Urban Design (3 cr.)
 SPEA P540 Community and Neighborhood Development Planning (3 cr.)
 SPEA P550 Topics in Planning (3 cr.) (urban topics only)
 SPEA P630 Strategic Planning (3 cr.)

SPEA V564 Urban Management (3 cr.)

SPEA V622 Seminar in Urban Economic Development (3 cr.)

Specialized Concentration in Planning and Public Policy

(14-15 credit hours)

Students with professional interests and goals that are not met by the preceding concentrations may choose to develop a customized concentration with the approval of their faculty advisors.

Experiential Requirement

In addition to the course requirements listed above, students must demonstrate professionally relevant experience through approved internships, approved independent study projects, or other field experience approved by the director of the Graduate Program in Planning.

General Elective Courses

General elective courses are used to complete the overall degree requirement of 49 graduate credit hours.

Joint Master's Degrees

Master of Health Administration–Doctor of Jurisprudence (M.H.A.–J.D.)

The School of Public and Environmental Affairs and the School of Law—Indianapolis have established a four-year, full-time program for the combined study of law and health administration. This course of study addresses the need for professionals who understand the legal and administrative frameworks necessary to function successfully as a health lawyer or a health services administrator.

The Master of Health Administration (M.H.A.) and the Doctor of Jurisprudence (J.D.) are awarded when the student meets the degree requirements of each school. All courses are offered on the Indianapolis campus. Successful completion of this rigorous 125.5 credit hour program provides the graduate sufficient depth and breadth in each discipline to be able to function effectively in the swiftly changing health field.

The delivery of health care and health services is the second largest industry in the United States, accounting for almost 14 percent of the gross national product. The importance of health care to our citizens has long been obvious.

What has become more apparent recently, however, is the growing impact of case law, statutes, and regulations on access to and availability of care; on the delivery of health care services; and, increasingly, on decisions relating to the appropriateness of individual treatment. For this reason, the Schools of Law and Public and Environmental Affairs have sought jointly to develop a strong academic curriculum to address the educational needs of health lawyers and health service administration executives as they seek to serve the public's needs.

Admissions

Applicants must apply for admission to each school and must meet the admission criteria published in each school's bulletin. Normally, applicants should apply to both the School of Law—Indianapolis and the School of Public and Environmental Affairs at the same time. However, a person enrolled in the School of Law may apply for admission to the Graduate Program in Health Administration up to the end of the second year of law study (approximately 57 credit hours). A student formally enrolled in the study of health administration may seek admission to the School of Law—Indianapolis up to the end of the first year of full-time study leading to the award of the Master of Health Administration (approximately 30 hours of graduate credit).

Academic Standing Grade point averages in the School of Law—Indianapolis and the School of Public and Environmental Affairs are computed separately. To continue in the joint program, the student must meet the academic standards in each school. A student failing in one school but meeting academic standards in the other may complete course work for the degree in the school in which the student is able to meet the academic standards. Such completion must be according to the same conditions (credit hours, residency, etc.) required of regular (noncombination) degree candidates. Students are eligible for honors in each school based on the criteria of each school.

Residency The student customarily completes the first 34 credit hours in the School of Law—Indianapolis. Thereafter, the student divides the remaining course work between the two schools, taking health administration courses and law courses concurrently. Thus, the student has a continuing educational experience in both schools.

Program Requirements

(125.5 credit hours)

Master of Health Administration (M.H.A.) Requirements

(43.5 credit hours)

Students must complete 43.5 credit hours distributed among the M.H.A. required core, electives, and a joint research paper.

Required Courses (34.5 credit hours):

SPEA H501 U.S. Health Care: Systems, Policies, and Ethical Challenges (3 cr.)

SPEA H502 Developing Strategic Capability (3 cr.)

SPEA H507 Management of Individual and Group Behavior (3 cr.)

SPEA H508 Managing Health Care Accounting Information for Decision Making (3 cr.)

SPEA H509 Financial Management Principles of Health Care (3 cr.)

SPEA H510 Health Services Financial Management (3 cr.)

SPEA H514 Health Economics (3 cr.)

SPEA H521 Management Science for Health Services Administration (3 cr.)

SPEA H623 Health Care Applications of Strategic Management (3 cr.)

SPEA H628 Health Care Information Systems (3 cr.)

BUS M540 Service Marketing (1.5 cr.)

Elective Courses (6 credit hours)

Six credit hours of elective courses, chosen from the following:

SPEA H517 Managerial Epidemiology (3 cr.)

SPEA H518 Statistical Methods for Health Services (3 cr.)

SPEA H612 Marketing for Health Services Delivery (3 cr.)

SPEA H626 Health Services Human Resources Management (3 cr.)

SPEA H627 Seminar in Advanced Health Finance (3 cr.)

SPEA H630 Readings in Health Services Administration (1-3 cr.)

SPEA V541 Benefit-Cost Analysis of Public and Environmental Policies (3 cr.)

Joint Research Paper (6 credit hours)

SPEA H735 Research in Health Administration is to be completed in the last year of the combined program.

Doctor of Jurisprudence (J.D.) Requirements

(82 credit hours)

Students are required to complete 82 credit hours of law courses and to satisfy all requirements for the Doctor of Jurisprudence degree.

Master of Health Administration–Master of Business Administration (M.H.A.–M.B.A.)

The combined M.H.A.–M.B.A. program enables the student to take a sequence of courses leading to the attainment of both degrees. Successful completion of this 73.5 credit hour program provides the graduate student with sufficient depth and breadth in each discipline to function effectively in a health care delivery system that is driven by business principles.

Admissions To participate in the joint program, students must apply and be accepted into both the School of Public and Environmental Affairs Master of Health Administration program and the Indianapolis Kelley School of Business Master of Business Administration program. To streamline the admission process, SPEA will accept the results of the GMAT exam in place of the GRE from applicants to the joint program.

Academic Standing Grade point averages for the two schools are computed separately. To continue in the joint program, the student must meet the academic standards in each school. Students failing in one school but meeting academic standards in the other school may complete work for the degree in the school in which they are able to meet the standards. Such completion must be upon the same conditions as required of regular (noncombination) degree candidates. Students are eligible for honors in each school based on the criteria of each school.

Program Advisors Once students have been accepted into this joint degree program, they should meet academic advisors to plan course sequencing.

All M.B.A. core courses must be taken as intact modules. Full-time students typically take two M.H.A. and two M.B.A. courses each semester. Part-time students take either two M.H.A. or two M.B.A. courses each semester. Since M.B.A. courses must be taken as a cohort, part-time students will need to sequence all the M.B.A. courses in a block.

Program Requirements

(73.5 credit hours)

The following degree requirements are required of all students admitted to the program.

Master of Health Administration (M.H.A.) Requirements

(34.5 credit hours)

Students are required to complete 34.5 credit hours of SPEA courses and to satisfy all requirements for the joint degree.

SPEA H501 U.S. Health Care: Systems, Policies, and Ethical Challenges (3 cr.)

SPEA H507 Management of Individual and Group Behavior (3 cr.)

SPEA H508 Managing Health Care Accounting Information for Decision Making (3 cr.)

SPEA H510 Health Services Financial Management (3 cr.)

SPEA H514 Health Economics (3 cr.)

SPEA H516 Health Services Delivery and the Law (3 cr.)

SPEA H518 Statistical Methods for Health Services (3 cr.)

SPEA H615 Health Care Outcomes and Decision Making (3 cr.)

SPEA H623 Health Care Applications of Strategic Management (3 cr.)

SPEA H627 Seminar in Advanced Health Finance (3 cr.)

SPEA H650 Strategies for Career Preparation (1.5 cr.)

SPEA H702 Internship in Health Services Management (3 cr.) **or**

SPEA H735 Research in Health Administration (3 cr.)

Master of Business Administration (M.B.A.) Requirements

(39 credit hours)

Students are required to complete 39 credit hours of business administration courses and to satisfy all requirements for the joint degree. For specific guidelines, see the Indianapolis Kelley School of Business Graduate Bulletin.

Master of Health Administration–Master of Science in Nursing (M.H.A.–M.S.N.)

The combined M.H.A.–M.S.N. program enables the student to take a sequence of courses leading to the attainment of both degrees. Successful completion of this rigorous 70.5 credit hour program provides the graduate nurse with sufficient depth and breadth in each discipline to be able to function effectively in the rapidly changing health field.

Admissions Applicants must have a bachelor's degree or its equivalent from an NLN-accredited school of nursing, meet the admission criteria of each school, and apply to both the School of Nursing (Indianapolis) and the School of Public and Environmental Affairs. If applicants are admitted to only one of the schools, they are permitted to attend that school and are required to meet the graduation requirements of that school.

Applicants must complete at least 3 credit hours each of undergraduate course work in accounting, microeconomics, and statistics with a grade of C or higher from an accredited institution.

It is preferred that the student apply to both schools simultaneously for the combined program. It is possible, however, for students already enrolled in the School of Nursing to apply for admission to the School of Public and Environmental Affairs up to the time they complete the second year of nursing study. It also is possible for a student enrolled in the School of Public and Environmental Affairs to seek admission to the School of Nursing up to the end of the first year of the M.H.A. course of study.

Academic Standing Grade point averages for the two schools are computed separately. To continue in the joint program, the student must meet the academic standards in each school. A student failing in one school but meeting academic standards in the other school may complete work for the degree in the school in which the student is able to meet the standards. Such completion must be upon the same conditions as required of regular (noncombination) degree candidates (i.e., 42 credit hours for School of Nursing and 60 credit hours for SPEA). Students are eligible for honors in each school based on the criteria of each school.

Program Advisors Students enrolled in the combined program are assigned co-advisors; one from each school. The co-advisors are responsible for reviewing each semester's progress to assure attainment of educational objectives. The co-advisors also help students resolve scheduling problems that might develop as a result of the combined program.

Program Requirements

(70.5 credit hours)

The following degree requirements are required of all students admitted to the program.

Master of Health Administration (M.H.A.) Requirements

(34.5-37.5 credit hours)

Students are required to complete 34.5-37.5 credit hours of SPEA courses and to satisfy all requirements for the joint degree.

Required Courses (34.5-37.5 credit hours):

SPEA H501 U.S. Health Care: Systems, Policies, and Ethical Challenges (3 cr.)

SPEA H502 Developing Strategic Capability (3 cr.)

SPEA H508 Managing Health Care Accounting Information for Decision Making (3 cr.)

SPEA H510 Health Services Financial Management (3 cr.)

SPEA H514 Health Economics (3 cr.)

SPEA H516 Health Services Delivery and the Law (3 cr.)

SPEA H521 Management Science for Health Services Administration (3 cr.)

SPEA H615 Health Care Outcomes and Decision Making (3 cr.)

SPEA H621 Management Application Skills I (3 cr.)

SPEA H628 Health Care Information Systems (3 cr.)

BUS M540 Service Marketing (1.5 cr.)

H702 Internship in Health Services Management (3 cr.)

Elective (3 credit hours)

An additional course approved by the program advisor.

Master of Science in Nursing (M.S.N.) Requirements

(21-30 credit hours)

Students are required to complete 21-30 credit hours of nursing courses and to satisfy all requirements for the joint degree. For specific guidelines, see the School of Nursing Graduate Bulletin.

Master of Public Affairs–Doctor of Jurisprudence (M.P.A.–J.D.)

The combined M.P.A.–J.D. program enables the student to take a sequence of courses leading to the attainment of both degrees.

Admissions The student must have a bachelor's degree from an accredited institution of higher education and must apply to both the School of Law—Indianapolis and the School of Public and Environmental Affairs. If the applicant is admitted to only one school, the applicant is permitted to attend that school and is required to meet the graduation requirements of that school. It is preferred that the student apply to both schools simultaneously for the combined program. It is possible, however, for a person already enrolled in the School of Law to apply for admission to the School of Public and Environmental Affairs up to the time that student completes the second year of law study. It is also possible for a student enrolled in the School of Public and Environmental Affairs to seek admission to the School of Law up to the end of the first year of the M.P.A. course of study.

Academic Standing Grade point averages in the School of Law—Indianapolis and the School of Public and Environmental Affairs are computed separately. To continue in the program, the student must meet the academic standards in each school. A student failing in one school but meeting academic standards in the other may complete work for the degree in the school in which the student is able to meet the academic standards. Such completion must be according to the same conditions (credit hours, residency, etc.) required of regular (noncombination) degree candidates. Students are eligible for honors in each school based on the criteria of each school.

School Residency Students in the joint program should enroll in courses through the School of Law—Indianapolis in the first year of the program and through the School of Public and Environmental

Affairs in the second year of the program. In the third and fourth years, or until the program is completed, students should enroll through the school in which the majority of their credit hours reside in each enrollment period.

Program Requirements

(118 credit hours)

Master of Public Affairs (M.P.A.) Requirements

(34 credit hours)

Students are required to complete 34 credit hours of SPEA courses distributed among the M.P.A. core, a specialization, and a research paper.

Required Courses (18 credit hours):

- SPEA V501 Professional Development Practicum: Information Technology (1 cr.)
- SPEA V502 Public Management (3 cr.)
- SPEA V503 Professional Development Practicum: Writing and Presentation (1 cr.)
- SPEA V505 Professional Development Practicum: Teamwork and Integrated Policy Project (1 cr.)
- SPEA V506 Statistical Analysis for Effective Decision Making (3 cr.)
- SPEA V517 Public Management Economics (3 cr.)
- SPEA V560 Public Finance and Budgeting (3 cr.)
- SPEA V600 Capstone in Public and Environmental Affairs (3 cr.)

Specialization (14 credit hours)

The student chooses a field of specialization and develops a program of specialization courses in consultation with the SPEA program advisor.

Research Paper (2 credit hours)

SPEA V590 Research in Public Affairs, a required research paper, is written during the final year of the program.

Doctor of Jurisprudence (J.D.) Requirements

(84 credit hours)

Students are required to complete 84 credit hours of law courses and satisfy all requirements for the degree Doctor of Jurisprudence.

Master of Public Affairs–Master of Arts in Philanthropic Studies (M.P.A.–M.A.)

The combined Master of Public Affairs with a concentration in nonprofit management and Master of Arts in Philanthropic Studies enables a student to take a sequence of courses leading to the receipt of both degrees. This joint degree program focuses on the history, culture, and values of philanthropy as well as the managerial frameworks of public service and quasi-governmental institutions.

Admissions To participate in the joint degree program, students must apply and be accepted into both the Master of Public Affairs program and the Master of Arts in Philanthropic Studies program. Most students will apply for admission to both programs simultaneously. However, if admitted to one program

first, the student should submit an application for admission to the other program before completing 24 credit hours toward the first program.

Academic Standing Grade point averages for the programs are computed separately. To continue in the program, the student must meet the academic standards in each school. A student failing in one school but meeting academic standards in the other school may complete work for the degree in the school in which the student is able to meet the standards. Such completion must be upon the same conditions as required of regular (noncombination) degree candidates. Students are eligible for honors in each school based on the criteria of each school.

Program Advisors Students enrolled in the combined programs are assigned co-advisors, one from each school. The co-advisors are responsible for reviewing each semester's progress to assure attainment of educational objectives. The co-advisors also help students resolve scheduling problems that might develop as a result of the combined program.

Program Requirements

(63 credit hours)

The following degree requirements are required of all students admitted to the program.

Master of Public Affairs (M.P.A.) Requirements

(39 credit hours)

Students are required to complete 39 credit hours of SPEA courses and to satisfy all requirements for the joint degree.

M.P.A. Core Requirements (21 credit hours):

- SPEA V501 Professional Development Practicum: Information Technology (1 cr.)
- SPEA V502 Public Management (3 cr.)
- SPEA V503 Professional Development Practicum: Writing and Presentation (1 cr.)
- SPEA V505 Professional Development Practicum: Teamwork and Integrated Policy Project (1 cr.)
- SPEA V506 Statistical Analysis for Effective Decision Making (3 cr.)
- SPEA V517 Public Management Economics (3 cr.)
- SPEA V540 Law and Public Affairs (3 cr.)
- SPEA V560 Public Finance and Budgeting (3 cr.)
- SPEA V600 Capstone in Public and Environmental Affairs (3 cr.)

Experiential Component (3 credit hours)

Each M.P.A. student must obtain relevant experience. This can be accomplished through an approved internship, SPEA V590 Research in Public Affairs, the SPEA mid-career credit option, or PHST P590 Internship in Philanthropic Studies. Students wishing to complete the dual degree program in the minimum credit hours should take PHST P590.

Degree Electives (3 credit hours)

One of the courses from the M.A. in Philanthropic Studies will fulfill this requirement.

Nonprofit Concentration (18 credit hours):

- Both of the following:
- SPEA V521 The Nonprofit and Voluntary Sector (3 cr.)
- SPEA V525 Management in the Nonprofit Sector (3 cr.)

Nonprofit Theoretical Courses

One of the following:

- ECON E514 The Nonprofit Economy and Public Policy (3 cr.)
- HIST H509 History of Philanthropy in the West (3 cr.)
- PHIL P542 Ethics and Values of Philanthropy (3 cr.)

Nonprofit Application Courses

Two of the following:

- SPEA V522 Human Resource Management in Nonprofit Organizations (3 cr.)
- SPEA V526 Financial Management for Nonprofit Organizations (3 cr.)
- SPEA V550 Topics in Public Affairs: Fund Development for Nonprofit Organizations (3 cr.)
- SPEA V550 Topics in Public Affairs: Proposal Development and Grant Administration (3 cr.)
- SPEA V602 Strategic Management of Public and Nonprofit Organizations (3 cr.)
- EDUC C595 Legal Aspects of Philanthropy (3 cr.)

General Management Courses

One of the following:

- SPEA H507 Management of Individual and Group Behavior (3 cr.)
- SPEA V516 Public Management Information Systems (3 cr.)
- SPEA V539 Management Science for Public Affairs (3 cr.)
- SPEA V541 Benefit-Cost Analysis of Public and Environmental Policies (3 cr.)
- SPEA V562 Public Program Evaluations (3 cr.)
- SPEA V566 Executive Leadership (3 cr.)

Master of Arts (M.A.) in Philanthropic Studies Requirements

(24 credit hours)

Students are required to complete 24 credit hours in philanthropic degree courses and satisfy all requirements for the Master of Arts in Philanthropic Studies degree.

Master of Public Affairs–Master of Science in Nursing (M.P.A.–M.S.N.)

The combined Master of Public Affairs–Master of Science in Nursing program enables a student to take a sequence of courses leading to the receipt of both degrees.

Admissions The student must have a bachelor's degree from an accredited institution of higher education and must apply to both the School of Nursing (Indianapolis) and the School of Public and Environmental Affairs. If the applicant is admitted to only one school, the applicant is permitted to attend that school and is required to meet the graduation requirements of that school. It is preferred that the student apply to both schools simultaneously for the combined program. It is possible, however, for a person already enrolled in the School of Nursing to apply for admission to the School of Public and Environmental Affairs up to the time that student completes the second year of nursing study. It is also possible for a student enrolled in the School of Public and Environmental Affairs to seek admission to the School of Nursing up to the end of the first year of the M.P.A. course of study.

Academic Standing Grade point averages in the School of Nursing and the School of Public and Environmental Affairs are computed separately. To continue in the joint program, the student must meet the academic standards in each school. A student failing in one school but meeting academic standards in the other may complete work for the degree in the school in which the student is able to meet the academic standards. Such completion must be on the same conditions (credit hours, residency, etc.) as required of regular (noncombination) degree candidates (i.e., 36 credit hours for nursing and 48 credit hours for SPEA). Students are eligible for honors in each school based on the criteria of each school.

Program Advisors Students enrolled in the combined program are assigned co-advisors, one each from the faculties of the School of Nursing and the School of Public and Environmental Affairs. The co-advisors are responsible for reviewing the student's progress each semester to assure attainment of educational objectives. The co-advisors also help students resolve scheduling problems that might occur as a result of the combined degree program.

Program Requirements

(64 credit hours)

The combined M.P.A.–M.S.N. program requires a minimum of 64 credit hours distributed between the Master of Public Affairs and the Master of Science in Nursing components, including a joint research paper.

Master of Public Affairs (M.P.A.) Requirements

(32 credit hours)

M.P.A. Core (21 credit hours):

- SPEA V501 Professional Development Practicum: Information Technology (1 cr.)
- SPEA V502 Public Management (3 cr.)
- SPEA V503 Professional Development Practicum: Writing and Presentation (1 cr.)
- SPEA V505 Professional Development Practicum: Teamwork and Integrated Policy Project (1 cr.)
- SPEA V506 Statistical Analysis for Effective Decision Making (3 cr.)
- SPEA V517 Public Management Economics (3 cr.)
- SPEA V540 Law and Public Affairs (3 cr.)
- SPEA V560 Public Finance and Budgeting (3 cr.)
- SPEA V600 Capstone in Public and Environmental Affairs (3 cr.)

Concentration (11 credit hours)

- SPEA V504 Public Organizations (3 cr.)

The remaining 8 credit hours consist of courses in a concentration chosen by the student in consultation with a SPEA advisor.

Master of Science in Nursing (M.S.N.) Requirements

(27 credit hours)

Students are required to complete 27 credit hours of nursing courses and to satisfy all requirements for the Master of Science in Nursing degree. For specific guidelines, see the School of Nursing Graduate Programs Bulletin.

Joint Research Paper (5 credit hours)

Credit for this supervised research is arranged and counts toward degree requirements in both schools. A minimum of 5 credit hours must be taken with at least 3 credit hours of research counting toward the M.S.N. degree and 2 credit hours of SPEA V590 Research in Public Affairs counting toward the M.P.A. degree. The topic must be selected no later than the end of the third year of the combined program, include elements of both disciplines, and be approved by the student's co-advisors. This paper must be completed in the last year of the combined program and jointly supervised by advisors from both schools.

Certificate Programs

Four graduate certificates are offered by the School of Public and Environmental Affairs at IUPUI: Certificate in Hazardous Materials Management; Certificate in Health Systems Management; Certificate in Nonprofit Management; and Certificate in Public Management. Certificate programs are flexible and adaptable to the needs of either precareer or in-service students.

Admissions

Admission Eligibility The student must have a bachelor's degree from an accredited college or university to apply. For the Certificate in Hazardous Materials Management, applicants must have completed one year of general chemistry.

Application Application forms and literature may be obtained from the same SPEA offices that offer material for the graduate degree programs. Students should apply to the SPEA admissions office on the campus where they plan to enroll.

Application Deadlines Application deadlines for the certificate programs vary by campus. For specific guidelines, check with the campus to which you are applying.

Application Fee Students must pay a nonrefundable application fee.

Program Restrictions

1. Students enrolled in a certificate program must complete it within 15 credit hours of approved SPEA course work with a minimum cumulative GPA of 3.00 (B). Failure to do so results in automatic dismissal from the certificate program.
2. Students who have completed more than three SPEA courses are not eligible for admission to a certificate program.
3. Transfer credit, course substitutions, or course waivers are not accepted for fulfilling the public management, nonprofit management, or health systems management certificate requirements. Students in the Hazardous Materials Management Certificate Program may utilize these options; however, they must first have the approval of their campus graduate program advisors.
4. Students admitted to a SPEA graduate degree program are not eligible for admission to the certificate program or eligible for the awarding of a certificate.
5. Admission to or successful completion of a certificate program does not guarantee

subsequent admission to a SPEA graduate degree program.

6. Students enrolled in a certificate program who apply to SPEA's graduate degree programs must meet all existing admission requirements.
7. Students planning to request admission to a SPEA graduate degree program after successfully completing a certificate program should refer to the application procedure presented earlier in this bulletin.

Certificate in Hazardous Materials Management

The Certificate in Hazardous Materials Management is a 15 credit hour program of study. The program provides managers and technicians in concerned organizations and agencies, public and private, with training in the management of hazardous materials. The certificate program provides an information base that managers and technicians can use to develop, implement, manage, and assess hazardous waste programs for local, state, and federal regulatory agencies. Graduate students in other disciplines can use the program to supplement their primary fields with course work in hazardous materials management, possibly using the certificate courses as part of a doctoral or master's minor.

Requirements

(15 credit hours)

Required Courses (9 credit hours):

- SPEA E510 Hazardous Materials Regulation (3 cr.)
- SPEA E520 Environmental Toxicology (3 cr.)
- SPEA E542 Hazardous Materials (3 cr.)

Electives (6 credit hours)

Two of the following courses:

- SPEA E515 Fundamentals of Air Pollution (3 cr.)
- SPEA E526 Applied Mathematics for Environmental Science (3 cr.)
- SPEA E536 Environmental Chemistry (3 cr.)
- SPEA E552 Environmental Engineering (3 cr.)
- SPEA E553 Creation and Solution of Environmental Models (3 cr.)
- SPEA E554 Groundwater Flow Modeling (3 cr.)
- SPEA E555 Topics in Environmental Science: Limnology (2-3 cr.)
- SPEA E560 Environmental Risk Analysis (3 cr.)
- SPEA E562 Solid and Hazardous Waste Management (3 cr.)
- SPEA H433 Industrial Hygiene and Radiological Health (3 cr.)
- GEOL G430 Principles of Hydrology (3 cr.)
- GEOL G451 Principles of Hydrogeology (3 cr.)
- GEOL G551 Advanced Hydrogeology (3 cr.)
- GEOL G585 Environmental Geochemistry (3 cr.)

Or other specialty courses with the approval of the campus graduate program advisor.

Certificate in Health Systems Management

The Certificate in Health Systems Management is a 15 credit hour program of study. The certificate program

is designed to serve administrators and physicians who are actively engaged in managerial duties; physicians and health care workers who may want to pursue managerial duties in the future; or those who want to gain greater understanding of the structure, processes, and goals of their health care organizations and the environment in which they operate.

Requirements

(15 credit hours)

Required Courses (9 credit hours):

SPEA H501 U.S. Health Care: Systems, Policies, and Ethical Challenges (3 cr.) **or**

SPEA V545 The U. S. Health Care System (3 cr.)

SPEA H502 Developing Strategic Capability (3 cr.)

SPEA H503 Principles of Health Systems Management and Policy Development (3 cr.)

SPEA H509 Financial Management Principles of Health Care (3 cr.)

Electives (6 credit hours)

The remaining courses will be determined by the faculty and the needs of the student and must be authorized by faculty.

Certificate in Nonprofit Management

The Certificate in Nonprofit Management is a 15 credit hour program of study. The certificate is designed to serve the needs of individuals who would like exposure to the nonprofit sector and nonprofit management issues but who do not wish or need to pursue a degree in nonprofit management. The certificate complements other courses of study or career experience in such areas as social work, library science, and parks and recreation. Students pursuing a nonprofit management certificate gain an understanding of how to work in and with nonprofit organizations.

Requirements

(15 credit hours)

Required Courses (9 credit hours):

SPEA V522 Human Resource Management in Nonprofit Organizations (3 cr.)

SPEA V525 Management in the Nonprofit Sector (3 cr.)

SPEA V526 Financial Management for Nonprofit Organizations (3 cr.)

Electives (6 credit hours)

Two additional SPEA graduate courses are selected with the approval of the student's advisor. A sampling of current course titles includes: Nonprofit and Voluntary Sector, Ethics and Values of Philanthropy, Fund Development for Nonprofit Organizations, Public Relations in Nonprofits, and History of Philanthropy in the West.

Students interested in continuing for the Master of Public Affairs should consider selecting the electives from the nonprofit management concentration.

Certificate in Public Management

The Certificate in Public Management is a 15 credit hour program of study in public management. The

certificate program is flexible enough to be adapted to the needs of precareer and in-service individuals. Graduate students in other disciplines can use the program to supplement their primary fields with course work in public management, possibly using the certificate courses as part or all of a doctoral or master's degree minor. Career employees of public- and private-sector agencies seeking courses in public management, and especially those changing from professional or technical roles to managerial roles, find the certificate program beneficial.

Requirements

(15 credit hours)

Required Courses (9 credit hours):

SPEA V502 Public Management (3 cr.)

SPEA V560 Public Finance and Budgeting (3 cr.)

SPEA V561 Public Human Resources Management (3 cr.)

Electives (6 credit hours)

Two additional SPEA graduate public affairs courses approved by the program director.

Note: Students interested in continuing on for the Master of Public Affairs degree should consider selecting the two elective courses from the M.P.A. core; one of the courses recommended is V506 Statistical Analysis for Effective Decision Making. These courses may also be applied to the Master of Planning upon admission to the M.Pl. program.

Graduate Courses

The abbreviation "P" refers to course prerequisites, and the abbreviation "C" indicates courses that should be taken concurrently. The number of credit hours is indicated in parentheses following the course title.

Criminal Justice Courses

J501 Evolution of Criminological Thought and Policy (3 cr.) This course provides an intensive introduction to the theoretical literature on crime and delinquency. Its purpose is to develop students' ability to critically evaluate and compare theories of crime as they apply to public policy and the criminal justice system.

J502 Research Methods in Criminal Justice and Public Affairs (3 cr.) This course examines research techniques necessary for systematic analysis of the criminal justice system, offenders' behavior, crime trends, and program effectiveness. The course requires that students actively pursue such techniques as conducting interviews, coding data, and designing studies. Criminological research will be critically examined.

J550 Topics in Criminal Justice (1-3 cr.) Selected research and special topics in criminal justice such as violence; history of criminal prosecution; and alcohol, drugs, and crime.

J582 Criminal Justice Systems (3 cr.) Detailed examination of operations of police, courts, and correctional agencies. Study of management problems in system response to criminal activity. Development

of understanding of relationships among system components. Examination of major policy issues in criminal justice, with emphasis on decision-making techniques.

J587 Criminal Violation: Problems and Characteristics (3 cr.) Commonalities in criminal behavior. Circumstances leading to the commission of the criminal act, subsequent perceptions of them. Family, community, and other environments affecting criminal behavior. Behavioral consequences of processes of crime control.

J588 Law and Control in Society (3 cr.) The role of law versus other forms of social control. How social change and social institutions shape the law. Social factors influencing the administration of law.

J666 Criminal Justice Policy and Evaluation (3 cr.) An empirical assessment of the foundations of contemporary and historical attempts to control or prevent crime. Major policies, programs, and strategies are reviewed and critically analyzed. Specific topics and policies will vary in this capstone seminar.

J682 Criminal Justice Planning and Management (3 cr.) Issues in criminal justice planning and management in policing, courts, and corrections are addressed. The problems faced by administrators in the implementation and development of public policies are considered.

Environmental Science Courses

The SPEA 400-level environmental science courses listed below, which are described in the undergraduate section of this bulletin, may be taken for graduate credit if specifically listed within degree requirements or approved by a graduate advisor.

E400 Topics in Environmental Studies (approved sections) (3 cr.)

E410 Introduction to Environmental Toxicology (3 cr.)

E431 Water Supply and Wastewater Treatment (3 cr.)

E440 Wetlands: Biology and Regulation (3 cr.)

E451 Air Pollution and Control (3 cr.)

E452 Solid and Hazardous Waste Management (3 cr.)

E455 Limnology (4 cr.)

E475 Techniques of Environmental Science (3 cr.)

E510 Hazardous Materials Regulation (3 cr.)

The course provides an in-depth study of federal, state, and local regulations and requirements pertaining to the management of hazardous materials.

E515 Fundamentals of Air Pollution (3 cr.) The purpose of the course is to provide the student with an understanding of the field of air pollution, including the behavior of the atmosphere and pollutants in the atmosphere, effects of air pollution, regulatory programs, engineering controls, and air quality management programs.

E520 Environmental Toxicology (3 cr.) An examination of the principles of toxicology and the toxicity resulting from environmental exposure to chemical substances.

E526 Applied Mathematics for Environmental Science (3 cr.) P: differential and integral calculus. Applications of mathematics to modeling environmental processes. Applied calculus, numerical analysis, differential equations.

E527 Applied Ecology (3 cr.) P: one introductory-level ecology course. Ecosystem concepts in natural resource management. Techniques of ecosystem analysis. Principles and practices of ecological natural resource management.

E529 Application of Geographic Information Systems (3 cr.) Conceptual and technical overview of geographic information systems (GIS). Applications in various fields of public affairs and environmental science.

E533 Environmental Management Systems: ISO 14001 Based (3 cr.) This course provides students with the knowledge and skills to establish or improve an environmental management system that is compatible with ISO (International Organizations for Standardization) 14001, an international, voluntary standard that is emerging as a best-management practice for environment.

E535 International Environmental Policy (3 cr.) This course examines the forces in society alternately promoting and impeding cooperation in the environmental realm. Our inquiry is guided by four interrelated course units: (1) international environmental law, (2) international political order, (3) the environment and global markets, and (4) sustainable development.

E536 Environmental Chemistry (3 cr.) P: one course in chemistry with lab. Gas law calculations, stoichiometry, steady and non-steady state box models, stratospheric ozone, chemical kinetics, photochemical smog, greenhouse effect, CO₂ equilibria, chemodynamics, pesticides, and toxic metals.

E537 Environmental Chemistry Laboratory (3 cr.) P or C: SPEA E536 or consent of instructor. Experimental work in environmental chemical analysis to demonstrate analytical methods and instrumentation used in environmental laboratories, having reference to air, water, and soil quality.

E541 Controversies in Environmental Health (3 cr.) Research, presentation, writing, and argumentation skills will be developed using a debate format. The course focuses on topics related to environmental health and the health of the environment.

E542 Hazardous Materials (3 cr.) Topics of discussion include properties and chemistry of hazardous materials; recognition of potential hazards associated with the use, storage, and transport of these materials; emergency and spill response; health effects of hazardous materials; hazard communication and personal protection; and case studies related to the management of hazardous materials.

E546 Stream Ecology (3 cr.) P: SPEA E455. Advanced limnology course that explores patterns and processes characterizing stream ecosystems. Takes a holistic approach that includes: physical, chemical

and biological stream characteristics; watershed patterns; and stream processes (trophic dynamics, colonization and dispersal, community dynamics, and responses to change). A four-hour weekly lab and group project develop necessary analytical skills.

E547 Applied Earth Science (3 cr.) Principles of the earth sciences and their applications to environmental analysis and management. Identification, quantification, and analysis of critical components of watershed systems. Interaction of human activities with the physical environment.

E548 Applied Earth Science Laboratory (3 cr.) Principles and methods of sampling, collection, measurement, analysis, and interpretation of data concerning processes and features of the physical environment. Students will become familiar with field and laboratory equipment within the context of research projects. Emphasis is placed on practical application of basic techniques to real problems.

E549 Environmental Planning (3 cr.) Concepts and methodologies in environmental planning. The planning process. Topics may include environmental impact assessment, economic approaches to environmental decision making, use of computer models in environmental planning, geographic information systems in environmental planning, environmental perception, and construction of environmental indices. Team projects with planning agencies.

E552 Environmental Engineering (3 cr.) Concerned with biological, chemical, physical, and engineering knowledge essential to the achievement of environmental quality objectives. Theory and design of unit operations and processes for air, water, and land pollution abatement. Emphasis on water quality control, industrial wastewater treatment, and solid waste management.

E555 Topics in Environmental Science (2-3 cr.) Selected research and discussion topics in environmental science. Usually organized in a seminar format.

E560 Environmental Risk Analysis (3 cr.) P: SPEA E538 or V506, or consent of instructor. Methods of probabilistic risk analysis applied to environmental situations. Event trees, fault trees, toxicological estimation, ecological risk analysis. Social and psychological aspects of risk. Individual and group projects assessing some real environmental risk are an important part of the course.

E562 Solid and Hazardous Waste Management (3 cr.) The purpose is to provide students with a technical foundation in areas of solid and hazardous waste management which can be applied to the examination of policy options. Topics include characterization of the waste stream, regulations, health and environmental risks, liability issues, management technologies, and treatment and disposal options.

E579 Readings in Environmental Science (1-3 cr.) Readings on selected topics in environmental science to be arranged with the individual instructor.

E620 Environmental Analysis Workshop (3 cr.) Projects in environmental analysis.

E625 Research in Environmental Science (1-12 cr.) Research on selected topics in environmental science to be arranged with the individual instructor.

Health Administration Courses

The SPEA 400-level course listed below, which is described in the undergraduate section of this bulletin, may be taken for graduate credit if specifically listed within degree requirements or approved by a graduate advisor.

H433 Industrial Hygiene and Radiological Health (3 cr.)

H501 U.S. Health Care: Systems, Policies, and Ethical Challenges (3 cr.) Study of health, illness, and disease trajectories and the systemic components that mold the health care system. Ideological paradigms predicting utilization and health behaviors are addressed, as are guidelines for ethical decision making and problem analysis. Formulation and implementation of organizational and governmental policies and their associated theoretical assumptions are addressed.

H502 Developing Strategic Capability (3 cr.) An introduction to tools for strategic management and the complexities involved in determining long-term strategies in a health care environment. An examination of the dynamics of the competitive environment, how both the pace and direction of industry change are influenced by the resources, capabilities, and interactions of rival organizations.

H503 Principles of Health Systems Management and Policy Development (3 cr.) Explores management roles in public, nonprofit, and for-profit health system environments. Application of management theories, concepts and principles; development of ethical, professional values; and understanding managerial roles in organizational and public policy development emphasized. Managerial process, resource dependence, population ecology, contingency theory, corporate culture, ethics and quality management processes examined.

H504 Quantitative Health Planning Methods (3 cr.) P: SPEA H501 and H503. An examination of health planning theory, methods, and techniques, including quantitative and subjective forecasting, determination of health service area, identifying need and demand for health services, health resource allocation decision models, and standards for the design of services and facilities.

H505 Health Program Design, Implementation, and Evaluation (3 cr.) P: SPEA H501, H503, H504, and V595, or consent of instructor. Study and application of techniques to conduct, interpret, and present the design, implementation, and evaluation of health services programs. Includes collecting, analyzing, interpreting, and reporting information. Emphasis on computer utilization and statistical analysis as a management tool. Field project required.

H507 Management of Individual and Group Behavior (3 cr.) This course provides a conceptual framework for understanding behavior in the work environment by introducing concepts concerning effective management of people in organizations. Key theories and concepts in the field of organizational

behavior will be introduced. The focus of this course is at the micro level of analysis, addressing topics such as individual theories of motivation, job design, and diversity issues; management of work teams; group decision making; managing conflict; and leadership, influence, and power issues.

SPEA H508 Managing Health Care Accounting Information for Decision-Making (3 cr.) P: undergraduate principles of accounting. Provides a user-oriented understanding of how accounting information should be managed to ensure its availability on a timely and relevant basis for decision-making. A focus on cost-benefit analysis for evaluating potential value-added results from planning, organizing, and controlling accounting information.

H509 Financial Management Principles of Health Care (3 cr.) P: SPEA H508. Provides knowledge of corporate finance practice in health care organizations. Establishes an understanding of the basic elements of financial theory used to address business management problems and explores this interrelationship among corporate policies and decisions. Course work includes problem sets, preparation of summary memos, and use of spreadsheets.

H510 Health Services Financial Management (3 cr.) P: SPEA H509. An examination of cost accounting techniques used in health care organizations, with emphasis on measuring and using cost accounting information for planning, control, and nonroutine decision making. Conceptual and quantitative practice is provided using cases and computer spreadsheet programs.

H514 Health Economics (3 cr.) P: 3 credit hours of undergraduate economics. Examines the principles and application of economic analysis in the health field and the economist's approach to health care issues. Provides insights offered by economic analysis of specific health issues and problems.

H515 Seminar in Health Policy: Special Topics (3 cr.) P: SPEA H501, H503, or consent of instructor. Exploration of health policy topics from economic, financial, sociological, political, and psychological perspectives. Analytical paradigms are applied to organizational or macro policy-making issues that vary in response to changing environments. May be repeated once with advisor's approval.

H516 Health Services Delivery and the Law (3 cr.) Medical-legal concepts related to hospitals and other health services organizations. Course provides an in-depth understanding of the law and the legal processes affecting the health services system. Presentation of the elements of administrative and agency processes, torts, contracts, facilities, physicians, patients, and personnel.

H517 Managerial Epidemiology (3 cr.) Examines general epidemiologic methods such as population descriptive techniques, use of health indicators and secondary health-related data sources. Includes design, administration, and analysis of observational and experimental studies. Emphasis will be on the use of epidemiologic techniques to assess community health, determine community risk factors, and evaluate community-based programs.

H518 Statistical Methods for Health Services (3 cr.) P: 3 credit hours of undergraduate statistics. Study of the quantitative techniques commonly used to examine health-related data. Includes univariate, bivariate, and multivariate techniques. Emphasis is on using statistical techniques to make policy and administrative decisions in a health services setting. Students use standard computer software to analyze data.

H519 Environmental Health (3 cr.) This course provides a broad yet in-depth investigation of human interaction with the environment, the major elements of environmental health, and the effects which uncontrolled environmental hazards may have on people's physical, mental, and social well-being.

H521 Management Science for Health Services Administration (3 cr.) Focus is on management science methods, as applied to health sciences administration. Includes treatment of decision theory, constrained optimization, and probability simulation.

H601 Hospital Organization and Management (3 cr.) P: SPEA H501, H503, or V504, or consent of instructor. Study of the organization and management of hospital clinical, support, and administrative functions. Examination of performance evaluation techniques for health managers. Analysis of special operational problems and administrative ethics. Requirements of the Joint Commission Accreditation of Hospitals emphasized.

H602 Mental Health Services Organization and Management (3 cr.) P: SPEA H501, H503, or V504, or consent of instructor. Study of the organizations and systems for delivery of mental health services; emphasis on the management and financing of psychiatric services.

H603 Nursing Home Organization and Management (3 cr.) P: SPEA H501, H503, or V504, or consent of instructor. Study of the purpose, organization, and management of nursing homes and residential care facilities involving long-term, specialty treatment. Emphasis on personal and professional skills necessary to provide a wide range of services and quality care in these environments.

H604 Ambulatory Care and Managed Care Programs (3 cr.) P: SPEA H501, H503, or V504, or consent of instructor. Study of the organizational and managerial aspects of ambulatory health services delivery. Focus on delivery strategies and organizational models and on the operational issues of financial control, personnel, regulation, and evaluation.

H605 Multi-Institutional Systems and Arrangements (3 cr.) P: SPEA H501, H503, or V504, or consent of instructor. Students will be exposed to developing innovations in health services delivery structures in both the proprietary and nonprofit sectors. Emphasis will be placed on the organization and management of multi-institutional arrangements such as sharing, mergers, management contracts, consortium, and so forth.

H606 Health Services Quality Improvement and Risk Management (3 cr.) P: SPEA H501, H503, and V504. Critically examines the concepts, strategies, and techniques related to the improvement of the quality of health service delivery. Addresses the increasing need to enhance productivity given the impact of

external and other factors on the workplace. Principles and application of risk management concepts and techniques, including insurance, are emphasized.

H607 Public Health Organization and Management (3 cr.) The course provides a broad overview of the history of public health in the United States and an analysis of the structure and function of public health and voluntary health agencies.

H612 Marketing for Health Services Delivery (3 cr.) P: SPEA H501, H503, or H504, or consent of instructor. The course provides a working knowledge and the skills required to market health services. Health institution-based projects are emphasized.

H615 Health Care Outcomes and Decision Making (3 cr.) P: SPEA H501, H502, H514, and H518. Application of health outcomes measures in decision making and evaluation in various health service settings. Includes designing and implementing evaluation plans of health and social programs. Emphasis on evaluation strategies, measurement of health outcomes, and management decision making.

H620 Health Services Seminar (3 cr.) Characterized as the program's capstone course, this seminar is designed to assist the student in synthesizing and summarizing all previous course work. Course emphasizes "real-world" situations and requires active participation by the students.

H621 Management Applications Skills I (3 cr.) P: all required SPEA H500-level courses except H510. A study of the complexities of multi-institutional arrangements and integrated services in the health industry. Topics include the shift to regional alliances, multiprovider networks, integrated physician-hospital relationships, shared risk contracting, and capitated insurance products. This course focuses on understanding the forces driving shifts in the roles of different settings in the health care environment.

H622 Management Applications Skills II (3 cr.) P: SPEA H621. This second of three courses in the management application skills sequence focuses on applying skills to and making comparisons among specific health care settings. Topics include quality assurance, quality improvement, and risk management; cost finding, rate setting, financing, payment, and reimbursement; and human resource management, recruiting, and labor relations.

H623 Health Care Applications of Strategic Management (3 cr.) P: SPEA H501, H502, H510, and H521. Students will synthesize the previous course work into their capstone experience. Includes strategic management analytical models and their use in evaluative decision making. Students will gain competencies in strategic and managerial analytical skills through class discussion and practical application through a required interactive group project.

H626 Health Services Human Resources Management (3 cr.) This course provides the knowledge and skills needed to understand the application of personnel and labor relations techniques to the health services sector, with particular emphasis on human resources management, employee benefit programs, and labor relations as applied to the health services delivery organization.

H627 Seminar in Advanced Health Finance (3 cr.) P: SPEA H509 and H510. An advanced seminar in health services management dealing with cases, problems, and contemporary health finance issues. Student presentations emphasized.

H628 Health Care Information Systems (3 cr.) A study of the terminology, technology, and application of information systems in various health care settings. Topics include the gathering, organization, storage, and retrieval of complex data banks, as well as assessment of health service data needs and considerations in developing information systems. Includes many computer-based exercises.

H630 Readings in Health Services Administration (1-3 cr.) Supervised readings in selected areas of health services management, policy, and planning. For second-year students; open to others by arrangement.

H640 Topics in Health Services Administration (1-3 cr.) Selected research and discussions emerging in health services administration. Topics, organized in a semester-by-semester seminar format, will not cover topics available in other courses.

H650 Strategies for Career Preparation (1.5 cr.) This course will provide guidance in finding a summer internship and developing the skills necessary to obtain and work in a summer internship. Skills covered include interviewing, resume development, internship design, and other work-related skills.

H700 Residency (1-6 cr.) Requires the equivalent of 6 credit hours of on-site experience under the supervision of a qualified preceptor and program faculty; students who opt for longer residencies may continue to register for this course each semester. Grading is on an S/F basis.

H702 Internship in Health Services Management (3 cr.) P: SPEA H501, H509, H514, and H650. Requires the equivalent of a minimum of 3 credit hours of on-site experience under the supervision of a qualified preceptor and program faculty. Grading is on a S/F basis.

H735 Research in Health Administration (3-6 cr.) P: all core courses or consent of instructor. Field research conducted under the direction of a faculty member. Designed for advanced students and those who have elected not to take a residency. Grading is on a S/F basis.

Planning Courses

P500 Foundations of Planning (3 cr.) Overview of planning theory and practice. Course considers planning history, normative and applied theories of planning, approaches to planning, and ethics in planning. Course presents a critical perspective on state, regional, and local planning processes, how organizational structure and group processes affect the planning process, and general approaches to conflict negotiation and resolution.

P510 Social and Economic Aspects of Human Settlement (2 cr.) Examination of the development and growth of human settlement and social and economic aspects of regional policy. Topics include location theory, land use and zoning, economic development, population and employment, social service delivery and use, and planning for diversity.

P515 Physical Systems Development and Infrastructure (3 cr.) Examination of the physical environment and its role in development, environmental problems and policies, and the man-made physical infrastructure. Topics include soils, hydrology, solid waste management, transportation, air pollution, urban ecology, and recreation.

P520 Methods for Planning and Policy Analysis (2 cr.) P: SPEA V506. Application of analytical methods in the planning process. Topics include collection of information for planning, evaluation methods, forecasting techniques, and spatial analysis methods.

P525 Geographic Information Systems for Planning (2 cr.) Introduction to the principles of geographic information systems for use in planning. Covers representation of data, sources of data, analysis with geographic information systems, and the development of systems for planning. Emphasizes the learning of the use of geographic information systems software.

P527 Planning Applications of Geographic Information Systems (2 cr.) P: P525 or consent of instructor. The development of geographic information systems applications to address problems in planning. Consideration of a range of planning applications of geographic information systems. Advanced use of geographic information systems, including network and spatial analysis and the development of custom applications using geographic information systems software.

P530 Land Use Law (3 cr.) Public and private control of land use. Legal basis for public planning and regulation, zoning, subdivision regulations, and other forms of public regulation.

P532 Site Planning and Urban Design (3 cr.) Examination of prerequisites for site planning, including environmental, legal, and infrastructure consideration. Development of basic graphic design skills. Application to development of site plans at various scales. Introduction to urban design principles.

P540 Community and Neighborhood Development Planning (3 cr.) Examination of the role of neighborhoods in planning; methods of neighborhood analysis; government intervention; issues in community development; planning for neighborhood and community development, including citizen participation and institutional mechanisms; and implementation.

P550 Topics in Planning (3 cr.) Selected research and discussion topics vary by semester. May be repeated for credit.

P580 Readings in Planning (1-3 cr.) P: written consent of instructor. Readings on selected topics in planning.

P585 Practicum in Planning (1-6 cr.) P: prior approval of the director of the Graduate Program in Planning. Students hold work assignments with planning agencies. Requires written evaluations by supervisor and submission of written reports by student. Grading is on an S/F basis.

P590 Research in Planning (1-3 cr.) P: written consent of instructor. Research on selected topics in planning.

P600 Portfolio Assessment (1 cr.) Capstone seminar addresses professional ethics in planning and requires assembly, evaluation, and presentation of portfolio of work completed while in Master of Planning program. Written consent of program director required. Grading is on an S/F basis.

P610 Planning Workshop (3 cr.) P: written consent of instructor. Students work as a group on a complex planning problem for a public sector client. Presentation of findings made to client.

P630 Strategic Planning (3 cr.) Strategic planning and strategic management are processes used by organizations to align their actions with their mission, goals, and objectives. This course describes the theory and practice of strategic planning and management in public and nonprofit organizations, focusing on the methods that planners and managers use to ensure such alignments.

P650 Planning Seminar (3 cr.) P: written consent of instructor. Student research and presentation on selected topics intended to integrate the educational experience. Preparation of final professional report.

Public Affairs Courses

V500 Quantitative Tools for Public Affairs (1-3 cr.) A modular presentation of mathematical and statistical concepts designed to prepare students for V506 Statistical Analysis for Effective Decision Making. Representative module topics include basic algebraic concepts, probability, computer use, and matrix algebra.

V501 Professional Development Practicum: Information Technology (1 cr.) Provides an introduction to information technology and computing software skills in a problem-solving context.

V502 Public Management (1-3 cr.) Analysis of concepts, methods, and procedures involved in managing public organizations. Problems of organization, planning, decision making, performance evaluation, and management of human resources are considered. Cases are drawn from a variety of public services found at federal, state, and local levels of government.

V503 Professional Development Practicum: Writing and Presentation (1 cr.) Students use practical methods to develop professional-level writing and oral communication skills to engender an appreciation for the value of effective communication skills: learn to analyze a case study effectively, write policy memos, executive summaries, news releases, professional letters; critique presentations of outside professionals; and assess personal and peer presentations.

V504 Public Organizations (1-3 cr.) This course focuses on the behavior and theory of public organizations in four areas: (1) individuals and groups in public organizations, (2) the design of public organizations, (3) organization-environment relations, and (4) interorganizational relations.

V505 Professional Development Practicum: Teamwork and Integrated Policy Project (1 cr.) Students integrate courses and knowledge through team-based case analysis of complex policy

problems. Teamwork is practiced using structured team-building exercises and discussions.

V506 Statistical Analysis for Effective Decision Making (3 cr.)

Noncalculus survey of concepts in probability, estimation, and hypothesis testing. Applications of contingency table analysis and analysis of variance, regression, and other statistical techniques. Computer processing of data emphasized.

V507 Data Analysis and Modeling for Public Affairs (3 cr.)

P: SPEA E538 or V506. Focus on analytical models and their use in solving problems and making decisions in the public sector. Discussion of standard approaches to modeling and estimation of parameters.

V508 Topics in Quantitative Analysis (1-3 cr.)

P: consent of instructor. Study and application of selected quantitative methods of analysis. Additional topics that are not included in V506 and V507 may be presented, or more advanced examination of topics that are introduced in V506 or V507 may be presented.

V509 Administrative Ethics in the Public Sector (3 cr.)

Ethical conduct in the public sector is examined. Topics covered could include personal ethical responsibility, deception, corruption, codes of ethics, policy making, morality, politics, and whistle blowing. Case studies and media material will be used to illustrate these and other such issues affecting the workplace.

V510 Government Regulation in Market Economies (3 cr.)

P: SPEA V517 or consent of instructor. An overview of government regulation and involvement in the private sector and of public policy consequences of government action in market economies. Analysis of case studies in business-government relations.

V512 Public Policy Process (1-3 cr.)

An examination of the role of public affairs professionals in policy processes. Focuses on relationships with political actors in various policy areas.

V516 Public Management Information Systems (3 cr.)

This course focuses on the application of information systems concepts and tools to challenges and opportunities in the public sector. Topics covered will include current trends in information systems; managerial use of information systems; hardware, software, and telecommunications; systems development processes and practices; and strategic and policy issues in information systems.

V517 Public Management Economics (3 cr.)

This course focuses on applications of the principles and concepts of intermediate microeconomic theory and managerial economics to public sector management decisions and policy analysis. The course utilizes case studies to give students opportunities to recognize the economic dimensions inherent in the public policy problems and to develop an analytical problem-solving orientation.

V518 Intergovernmental Systems Management (1-3 cr.)

Discussion of theories and approaches to systems management, including responsibilities and tasks of public systems. Examination of intergovernmental relationships and intralocal

governmental relationships; treatment of organizational and systems design; as well as planning, decision making, and control of public systems. Discussion of applications to services such as environment, health, and human services.

V519 Database Management Systems (3 cr.)

This course provides students with an in-depth knowledge of database design and management in public organizations. The students create a conceptual, logical, and physical design of databases; build models of data required by users with modeling formalisms and computer-aided software engineering tools; and design queries using leading database software packages.

V520 Environmental Policy Analysis (3 cr.)

The interrelationships among social, technical, and natural systems. Theories of growth. Causes and implications of environmental problems. Alternative policies and mechanisms for environmental control and bases for choice.

V521 The Nonprofit and Voluntary Sector (3 cr.)

Same as PHST P521. The theory, size, scope, and functions of the nonprofit and voluntary sector are covered from multiple disciplinary perspectives including historical, political, economic, and social.

V522 Human Resource Management in Nonprofit Organizations (3 cr.)

This course provides an overview of the human resource management areas necessary for the productive functioning of nonprofit organizations. Theories of motivation applicable to the management of staff and volunteers and personnel topics of recruitment, selection, board-staff relations, compensation, training, and development are covered.

V523 Civil Society and Public Policy (3 cr.)

Exploration of interaction of public policy and nonprofit organizations, drawing on history, political theory, and social science. Includes examination of regulations and taxation. Depending on instructor's interests, course covers nonprofit role in selected policy arenas (such as environment and poverty) and industries (such as international development and health care).

V524 Civil Society in Comparative Perspective (3 cr.)

An exploration of state-society relationships in a variety of regimes and time periods. Focuses on ways regimes' policies affect the existence and contribution of those nongovernmental and nonprofit organizations that stand between the individual and the state and how nonprofit organizations shape the policy agenda of a regime.

V525 Management in the Nonprofit Sector (3 cr.)

P: SPEA V521 or PHST P521. An examination of nonprofit organizations and their role in society. Management issues and public policy affecting these organizations are discussed. Primary emphasis is upon U.S. organizations, but attention is given to the global nature of the sector.

V526 Financial Management for Nonprofit Organizations (3 cr.)

This course emphasizes a thorough understanding of the language and key concepts of nonprofit financial management. A working knowledge of the basic analytical tools used in financial decision making for nonprofit organizations will be examined through the use of computer software.

V529 Seminar in Career and Professional Development (1 cr.)

Introduction to career development in public and environmental affairs. Orientation to career development approaches and resources. Discussion and practice of professional skills and techniques. Orientation to career development opportunities. Grading is on an S/F basis.

V539 Management Science for Public Affairs (3 cr.)

P: SPEA V506. Focuses on management science methods as applied to public affairs. Includes treatment of decision theory, constrained optimization, and probability simulation.

V540 Law and Public Affairs (1-3 cr.)

Explanation of law in society and its influence on public sector operations. Examination of some of the central substantive areas of the study of law, including regulatory processes, administrative adjudication, the Administrative Procedures Act, ombudsmen, and citizen rights, among others.

V541 Benefit-Cost Analysis of Public and Environmental Policies (3 cr.)

P: SPEA V517 or consent of instructor. A course applying benefit-cost analysis to public and environmental policies. The first part of the course develops the foundation of benefit-cost analysis. The second part of the course consists of case studies applying benefit-cost analysis to actual policy decisions.

V542 Governmental Financial Accounting and Reporting (3 cr.)

P or C: SPEA V560. An introduction to the fundamentals of accounting in business, nonprofit, and public sectors. Intended only for students without previous accounting courses. Primary emphasis is on municipal entity fund accounting, including the development and use of financial statements.

V543 Health Services Management (3 cr.)

A course that integrates theory and application with respect to management of health service organizations. Emphasis on the role of managers and management within formal health service organizations. Current management and organization theories are applied to an understanding of health care delivery settings.

V545 The U.S. Health Care System (3 cr.)

An analysis of the delivery of health care in the United States from 1900 to the present. Major system components are defined and studied with emphasis on current health care policy. Topics include the organization of health care delivery on federal, state, and local levels, in both public and private sectors.

V546 Health Services Utilization (3 cr.)

An examination of problems of access to health care and the utilization of health services. The social, political, and individual factors associated with utilization are studied, along with social change and control strategies. Special emphasis is given to power and the definition of power in the system.

V547 Negotiation and Dispute Resolution for Public Affairs (3 cr.)

Students will learn the skill of interest-based negotiation through role play and simulation. Students will learn about dispute resolution techniques such as mediation, arbitration, fact finding, early neutral evaluation, ombudsmanship,

and facilitation. The course covers dispute resolution in federal government and in the context of public, environmental, labor, and business disputes.

V550 Topics in Public Affairs (1-4 cr.) Selected research and discussion topics organized on a semester-by-semester basis, usually with significant student input in the course design.

V551 Topics in Comparative Public Policy (3 cr.) The role of administrative and political systems in an international setting that focuses on industrial policy as developed between collaborative governments and their links to the key countries of Asia, Europe, the Americas, and Africa will be examined in topic settings. Related readings and published research will also be used.

V554 Human Services Administration (3 cr.) Focus is on policy, management, and organization relating to a variety of human service systems. Special attention is given to the management of social programs in the environmental system.

V556 Topics in Human Services Administration (3 cr.) Readings and research on selected topics in the field of the management of human services. Topics selected for study will vary.

V557 Proposal Development and Grant Administration (3 cr.) This course provides the opportunity for each student to develop a complete proposal through participation in the entire grant application process. The integration of case studies, visual media, printed materials, and class discussions provides students with practical knowledge for writing successful proposals.

V558 Fund Development for Nonprofits (3 cr.) Important aspects of the fundraising process in nonprofit organizations are covered, including techniques and strategies for assessing potential sources of support, effective use of human resources, process management, theory to underlay practice, analysis of current practice, practice standards, and discussion of ethical problems.

V560 Public Finance and Budgeting (1-3 cr.) The fiscal role of government in a mixed economy; sources of public revenue and credit; administrative, political, and institutional aspects of the budget and the budgetary process; problems and trends in intergovernmental fiscal relations.

V561 Public Human Resources Management (3 cr.) Analysis of the structure, operations, and design of public personnel systems, including government agencies and public enterprise. Relationships between public policy and personnel concepts, values, and operations are considered.

V562 Public Program Evaluation (1-3 cr.) Examination of how the programs of public agencies are proposed, established, operated, and evaluated. Discussion of the role and conduct of research in the program evaluation process. In addition, techniques of effective evaluation and analysis are discussed.

V563 The Planning Process (1-3 cr.) Seminar designed to familiarize students with planning ramifications of policy issues faced by governments. The focal topics selected for study will vary. Emphasis placed on identification and analysis of substantive

issues, methods employed for resolution, and application of planning techniques for achieving goals.

V564 Urban Management (3 cr.) This course deals with the management of public policy in American urban government, with special attention to the relationships between structure, process, and policy. Readings and case studies will focus on urban management problems relating to leadership, planning, and operations.

V565 Environmental Conflict Resolution: Theory and Practice (3 cr.) Theories of environmental conflict resolution are examined. Students will practice through participation in a series of environmental conflict resolution simulations.

V566 Executive Leadership (3 cr.) The course offers an in-depth examination of factors that contribute to successful executive leadership practice in a wide variety of organizational settings. Topics include what leadership is, what impact leadership has, and how leaders use various approaches and powers to achieve their goals.

V567 Public Financial Administration (3 cr.) Problems of financial management in governmental units; alternative revenue sources, financial planning, and control; cash debt management; and survey of modern expenditure management, control, and planning.

V568 Management of Urban Government Services (1-3 cr.) The course deals with selected topics in urban services. The course may focus on a specific urban service or provide an overview for several urban services.

V569 Managing Interpersonal Relations (3 cr.) P: SPEA V502. This course will teach students the theory and application of individual and group human behavior. Key interpersonal skills will be modeled expertly on videotape. Students will be expected to practice these key skills and receive feedback on their performance.

V570 Public Sector Labor Relations (1-3 cr.) An introductory overview of labor relations concepts within the framework of the public sector. The development, practice, and extent of the collective bargaining process, as well as the administration of the labor agreement, will be examined for state agencies, local municipalities, and school districts.

V571 State and Local Environmental Management (3 cr.) This course examines a mix of management and policy issues. Included are civic environmentalism, alternatives to environmental regulation, unfunded mandates, environmental justice, public relations, outsourcing, ethical challenges, and managing scientific and technical personnel.

V572 Urban Topics (3 cr.) Selected topics in urban policy and administration. The course is sometimes restricted to a special group of students in order to focus on a particular research interest.

V575 Comparative Public Management and Administration (3 cr.) Reading and discussion of case studies and comparative analyses of formal organizations, with emphasis on governmental

bureaucracies, public corporations, and international organizations. Topics include bureaucratic environment and culture, technology and organizations, program evaluation, communication and decision making, and administrative structure and process.

V576 Approaches to Development (3 cr.) Examination of the application of development theory to the public sector. Topics include modernization theory, urbanization, development administration, community development, ethnicity, ideology, and national planning. Area case study project will include problems of policy implementation in developing areas.

V577 International Economic Strategies and Trade Policy (3 cr.) Examination of topics in international economics as related to problems of economic development policy. Topics include international trade, comparative economic policy, economic integration, foreign aid investment, exchange rates, and international economic organizations.

V578 Introduction to Comparative and International Affairs (3 cr.) The purposes of this course are to enlighten future public professionals about the promises and challenges posed by globalization, and to introduce and examine major concepts and case material from the world of comparative and international affairs.

V580 Readings in Public Affairs (1-3 cr.) P: written consent of instructor. Readings on selected topics in public affairs.

V581 Public Safety Law (1-3 cr.) Survey of historical development of Anglo-American law of public safety, including criminal law, civil remedies, administrative regulation of risk, and recent developments in employee and consumer safety. Emphasis on understanding legal theory and practice as basis for management decisions. Comparison of jurisprudential viewpoints and other disciplinary approaches to causation, prevention, and correction of public safety problems.

V585 Practicum in Public Affairs (1-6 cr.) Students hold work assignments with public agencies. Grading is on an S/F basis.

V586 Public Safety in the U.S. (2-3 cr.) Overview of criminal justice and public safety. Definitions of public safety and identification of major components. Functional description of major public safety agencies. Discussion of basic issues in public safety. Management in public safety system.

V590 Research in Public Affairs (1-3 cr.) P: written consent of instructor. Research on selected topics in public affairs.

V593 Analytical Methods in Planning and Policy Analysis (3 cr.) P or C: SPEA V507. Topics relate to goal setting and forecasting. Analytical methods include time series analysis, demographic projections, economic development and employment forecasting, and land use and transportation planning analysis. Optimization methods are applied to transportation and project management.

V594 Principles of Urban and Regional Science (3 cr.) Discussion of the basic processes of change and development in regional systems, with emphasis on metropolitan regions. Includes economic, demographic, and environmental aspects of their interactions.

V595 Managerial Decision Making (1-3 cr.) P: SPEA V504 and V539. Applications of decision-making tools to substantive public management problems. A variety of managerial cases and issues are selected for intensive discussion and analysis.

V597 Land Use Planning (3 cr.) The course examines the theoretical basis and practical need for land use planning. Emphasis is placed on the institutional context in which land use planning occurs. The course provides an in-depth analysis and exercise in plan preparations.

V600 Capstone in Public and Environmental Affairs (3 cr.) Interdisciplinary course designed to expose students to the realities of the policy process through detailed analyses of case studies and projects. Course integrates science, technology, policy, and management.

V601 Workshop in Public Affairs (1-6 cr.) Projects in public affairs. The students work on a research and resource team to complete a project for a public-sector client. Faculty act as project managers and resource personnel.

V602 Strategic Management of Public and Nonprofit Organizations (3 cr.) P: SPEA V502. Concepts, cases, and problem solving associated with the structure and process of strategic management in the public sector, broadly defined to include governmental and nongovernmental organizations.

V609 Seminar in Revenue Theory and Administration (3 cr.) P or C: SPEA V560. This seminar examines the basic objectives and the political and economic aspects of tax administration. In the course of an examination of the interrelationships of tax policy, tax laws, and tax administration, the course reviews the major economic issues raised by types of taxes and user charges. The seminar also examines the fundamentals of tax legislation. Major emphasis is on state and local administration, although some federal problems will be covered.

V610 Seminar in Government Budget and Program Analysis (3 cr.) P or C: SPEA V560. Advanced study of management aspects of budgetary process. Special cases are analyzed, and budget problem-solving exercises are utilized.

611 Design of Information Systems (3 cr.) P: SPEA V516 and V519. Students in this course will learn the concepts, skills, methodologies, techniques, tools, and perspectives essential to successfully develop information systems for the public sector. To achieve this, students will learn how to conduct systems requirements analysis, translate it to process and logical models, and design the systems.

V613 Implementation of Information Systems (3 cr.) P: SPEA V516, V519, and V611. This course is intended to build on prior courses in information systems management. The course covers advanced

topics in systems implementation and evaluation. Special emphasis is placed on evaluation of alternative systems designs and their implementation in operational settings of public agencies.

V622 Seminar in Urban Economic Development (3 cr.) P: SPEA V517 or course in urban economics or instructor's consent. Reading, discussion, and research into problems of urban economic development in the United States. Case study approach used to investigate job creation, financial incentives, development corporations, and other factors that have led to successful economic development plans and projects.

V623 Seminar in Urban Management (3 cr.) P: SPEA V561, V564, V567. This course is the required capstone course for all graduate students with a concentration in urban management. Course is combined with student's required internship. Students are assigned selected reading in current urban management issues as well as research projects and case studies on/in the communities they are serving.

V631 Health Planning (3 cr.) A workshop in analysis and use of health data in a planning context. Course deals with the planning process and planning methods with an emphasis on systems theory. Class project or plan is developed, and presented and defended in a simulated public hearing format.

V639 Managing Government Operations (3 cr.) P: SPEA V502. This is an introductory survey of operations management. Emphasis is placed on the analysis, design, and management of operation systems using models from operations management. Readings, lectures, and structured exercises are used to present the models and demonstrate their application.

V643 Natural Resource Management and Policy (3 cr.) P: SPEA V517. This course evaluates a broad range of contemporary resource policies, cases, and controversies, using bio-economic resource management models as an intuitive aid, wherever possible. Topics include fishery management, forestry policy, tropical deforestation, water management policy, nature preservation/endangered species, sustainable development, and national income accounting.

V645 Environmental Law (3 cr.) An overview of U.S. environmental law. Key environmental statutes are examined, as are court decisions interpreting those statutes. Topics include water and air pollution, hazardous waste, toxins, pesticides, and environmental impact statements.

V650 Topics in Public Personnel Management (1-3 cr.) P: SPEA V561. Readings and research on selected topics in the public personnel field. Topics may include such subjects as affirmative action, occupational health and safety, workforce forecasting and planning, and personnel approaches to position classification.

V660 Cases and Problems in Fiscal Administration (3 cr.) P or C: SPEA V560 or consent of instructor. An advanced seminar in the management aspects of public finance. Focuses on the budgetary process. Special cases are analyzed and budget problem-solving exercises are utilized.

V662 Seminar in Productivity and Program Evaluation (3 cr.) Examines the problem of rigorously determining the productivity of governmental services, including problems of defining and measuring public products, specifying public service inputs, and statistically estimating public service production functions. Concepts are given concrete application through careful investigation of attempts to measure productivity of governmental services.

V665 Seminar in Policy and Administration (3 cr.) Politics of program development and management. Translation of plans into viable, administrable programs. Marshaling support, political processes, strategies, constraints, tradeoffs, etc.

V667 Seminar in Public Capital and Debt Theory (3 cr.) P or C: SPEA V560. This seminar examines the options open to governments, especially state and local, and why they resort to debt finance. The issues raised by the alternatives are examined in detail. Among the topics are public authority debt, revenue bonds, methods of placement, lease-purchase finance, and maturity choice. In addition, management of idle cash balances will be considered.

V670 Topics in Public-Sector Labor Relations (1-3 cr.) P: SPEA V570 or consent of instructor. Selected research and discussion topics in the field of public-sector labor relations arranged on a semester-by-semester basis. Possible topics are collective bargaining in the public sector and dispute settlement in public-sector labor relations.

V675 Issues and Problems in Public-Sector Personnel and Labor Relations (3 cr.) P: SPEA V561 and V570. A capstone seminar providing a practical and integrated examination of significant current cases and problems confronting public-sector employees and employers.

V681 Seminar in Development Policy and Management (3 cr.) P: SPEA V575 and V576, or consent of instructor. The purpose of the course is to explore linkages among policy analysis, management models, programs, and outcomes in a variety of development efforts in less-developed countries. The primary focus is on empirical analysis of developing countries, with some attention to U.S. domestic ventures.

V690 Seminar in the Public Policy Process (3 cr.) An evaluation of the theoretical and empirical literature on public policy processes. The findings of policy research are evaluated. An integrative paper is required.

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PURDUE SCHOOL OF SCIENCE IUPUI



Science Building (LD) 222
402 N. Blackford Street
Indianapolis, IN 46202
(317) 274-0625
www.science.iupui.edu/science

Contents

475 IUPUI School of Science History	486 Department of Biology
475 The School of Science	493 Department of Chemistry
475 Degree Programs in the School of Science	500 Department of Computer and Information Science
475 Certificate Programs in the School of Science	506 Department of Geology
475 Admissions and Transfers	511 Department of Mathematical Sciences
475 Beginning Students	519 Department of Physics
476 Transfer Students	522 Department of Psychology
476 Transfer Credit	530 General Science
476 International Students	530 Administrative Officers
476 Graduate Students	530 Resident Faculty
477 Bulletin Designation and Program Planning	
477 Bulletin Designation	
477 Program Planning and Counseling Guidelines	
477 Undergraduate Programs	
477 Baccalaureate Degree	
478 Area Requirements for Baccalaureate Degrees	
479 Minors	
479 Certificate Programs	
479 Associate Degree	
480 Area Requirements for Associate Degrees	
480 Graduate Programs	
480 Master of Science Degrees	
480 Doctor of Philosophy Degrees	
481 Academic Regulations	
481 Pass/Fail Option	
481 Withdrawal	
481 Grade Replacement Policy	
481 Degree Grade Point Average	
481 Special Credit	
481 Auditing Courses	
481 Petition for Grade Change	
482 Science Scholars List and Dean's Honor List	
482 Candidates for Baccalaureate Degrees	
482 Double Major	
482 Double Degree	
482 Change of Major within the School of Science	
482 Second Baccalaureate Degree	
482 Degrees Awarded with Distinction	
482 Academic Standing	
482 Special Programs	
482 Teaching Certification	
483 Pre dental and Pre medical Programs	
483 Preoptometry, Prepharmacy, and Preveterinary Programs	
483 Pre-physical Therapy Program	
483 Honors Program	
484 Undergraduate Research Program	
484 Extracurricular Activities	
484 Scholarships and Awards	
485 Distinguished Faculty and Staff Awards	

IUPUI School of Science History

Indiana University (IU) established its first extension center at Indianapolis in 1916, although the first IU course was taught in Indianapolis in 1890. The Purdue University Indianapolis campus grew out of World War II training programs sponsored by Purdue and began its major operations in 1946. Indiana University established the Indianapolis regional campus in the mid-1960s. In 1968, Indiana University at Indianapolis was created by the Trustees of Indiana University, and less than a year later, in 1969, the trustees of Indiana and Purdue universities merged their Indianapolis operations to form Indiana University–Purdue University at Indianapolis. Indiana University was selected to administer the campus. Purdue brought to the merger a growing complex of degree programs and Purdue's traditional strengths in the physical sciences, engineering, and technology. The name of the campus was changed to Indiana University–Purdue University Indianapolis (IUPUI) in 1992. IUPUI and IU Bloomington are the largest of Indiana University's eight campuses.

A restructuring of undergraduate programs at IUPUI in the fall of 1972 created three new schools: the School of Liberal Arts (humanities and the social sciences), the School of Science (physical, behavioral, and life sciences), and the School of Engineering and Technology.

After being housed for almost 22 years on the 38th Street Campus, the School of Science made a historic move in two phases into two buildings on the main campus during 1991-1993.

The School of Science

IUPUI
Science Building, LD 222
402 N. Blackford Street
Indianapolis, IN 46202-3276
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The School of Science offers many undergraduate and graduate programs that will prepare students for a variety of careers open to scientists. As part of its instructional mission, the school also provides non-science majors with the scientific background to help them become more aware and better-informed consumers and citizens. Scientists push forward the boundaries of our knowledge of the natural world through applied and basic research. Science benefits society by providing fundamental knowledge and technical advances in such areas as health, ecology, computer and software design, mathematical modeling, and chemistry. Science informs the social sciences with scientific understanding of psychology, applications of statistics, and implications of environmental problems. Science contributes to the arts and humanities by offering knowledge of the physical universe and the symmetry and wonder of nature.

In addition to preparing students for traditional science-related career opportunities and for advanced study in graduate school, an undergraduate program in one of the sciences is considered excellent background for professional study in medicine (including veterinary medicine), dentistry, business administration, law, and areas of the social sciences where quantitative methods are important. Scientifically trained persons are also sought as administrators for some governmental agencies and as salespersons or managers by companies producing science-based products.

Supplementing the full-time instructional staff, with ranks ranging from instructor through full professor, is a contingent of well-qualified, experienced lecturers who are recruited from the reserve of talent existing in the Indianapolis area.

Degree Programs in the School of Science

The School of Science at Indiana University–Purdue University Indianapolis awards students degrees from both Purdue University (PU) and Indiana University (IU). This list shows all the degrees awarded and the institution granting the degree.

Biology

Bachelor of Arts PU
Bachelor of Science PU
Master of Science PU
^{1,2}Doctor of Philosophy

Chemistry

Associate of Science PU
Bachelor of Arts PU
Bachelor of Science PU
Master of Science PU
^{1,2}Doctor of Philosophy

Computer and Information Science

Bachelor of Science PU
Master of Science PU
¹Doctor of Philosophy

Geology

Bachelor of Arts IU
Bachelor of Science IU
Master of Science IU

Mathematical Sciences

Bachelor of Science PU
Master of Science PU
Pure/Applied Math
Applied Statistics
Math Education
Industrial/Applied Math
^{1,2}Doctor of Philosophy

Physics

Bachelor of Science PU
Master of Science PU
^{1,2}Doctor of Philosophy

Psychology

Bachelor of Arts PU
Bachelor of Science PU
Master of Science PU
Industrial/Organizational (I/O) Psychology
Clinical Rehabilitation Psychology

Doctor of Philosophy in Clinical Rehabilitation Psychology PU
¹Psychobiology of Addictions

Joint M.D. – ^{1,2}Ph.D. Degrees—Several departments participate in the joint M.D. – Ph.D. program with the Indiana University School of Medicine. In this program students concurrently earn an Indiana University Doctor of Medicine degree and a Ph.D. degree in the School of Science.

Certificate Programs in the School of Science

The School of Science at Indiana University–Purdue University Indianapolis also awards a Purdue University (PU) certificate.

Computer and Information Science

Certificate in Applied Computer Science PU

Admissions and Transfers

All students entering the School of Science must have been officially admitted to the university by the Office of Admissions, Cavanaugh Hall 129, 425 University Blvd., IUPUI, Indianapolis, IN 46202-5143. Further information and application forms may be obtained at this address or by calling (317) 274-4591. All applications for admission must be accompanied by a \$35 nonrefundable fee. Checks should be made payable to IUPUI.

Applicants should be aware that, under Indiana law, criminal convictions may result in ineligibility for admission to certain programs at IUPUI. For the School of Science, criminal convictions may also result in ineligibility for enrollment in certain courses or participation in certain projects. Questions regarding school policy on such matters should be addressed to the associate dean for academic programs and student development.

Beginning Students

Students entering IUPUI directly from high school should file their applications for admission during their senior year.

Acceptance to the university as a new student is influenced by several factors. The Office of Admissions is guided by the following:

1. The applicant should be a high school graduate or be scheduled to graduate before enrolling at IUPUI.
2. The extent to which the student meets or exceeds the minimum subject requirements indicated below is considered. For admission to the School of Science, the student's record should include the following course work:

¹Purdue University Ph.D. Programs, pursued at IUPUI, arranged through Purdue, West Lafayette.

²Indiana University Ph.D. Programs, pursued at IUPUI, in departments or programs of the Indiana University School of Medicine in which School of Science faculty hold adjunct appointments.

Subjects	Semesters
English	8
History and Social Science	6
Algebra	4
Geometry	2
Trigonometry ¹	1-2
Laboratory Science ²	6
Combination of foreign language, additional math, laboratory science, social science, or computer science courses	6-7

Students may be admitted with some deficiencies in mathematics or laboratory science. Such deficiencies may be removed by taking courses offered by the School of Science. However, these courses may not be counted as credit toward a School of Science degree. If the high school offers more than the above mathematics courses, students may benefit from taking precalculus mathematics.

In planning high school electives, the curricula of the various departments of the School of Science contained in this bulletin should be reviewed. Departmental advisors will be glad to help with planning for admission.

- All applicants are required to take the Scholastic Aptitude Test (SAT) or the American College Test (ACT). It is recommended that these tests be taken in the spring of the student's junior year in high school or fall of the senior year.
- Indiana Residents
 - Residents of Indiana must rank in the upper half of their high school graduating class or have a combined verbal-math SAT score of 1050. In either case, neither SAT score may be below 480.
 - Residents of Indiana must rank in the upper half of their high school graduating class or have an ACT composite score of 23. In either case, neither the verbal nor math ACT score may be below 18.
 - A marginal applicant may be granted admission, admitted on probation, or have admission denied.
- Out-of-State Residents

If enrollment limits are in place, out-of-state applicants must rank in the top third of their high school graduating class. They must also rank in the top third of the IUPUI distribution on the SAT or ACT.
- Information provided by the high school counselor is considered.

Students should declare a major when applying for admission so a departmental advisor can be assigned.

Transfer Students

From IUPUI Schools, Indiana University Campuses, and Purdue University Campuses

Prospective transfer students should have a minimum grade point average of 2.0 on a 4.0 scale, meet the requirements of the department they wish to enter,

¹Students who plan to major in chemistry, computer science, or physics must have taken an advanced mathematics course that includes trigonometry.

²It is advised that one semester of chemistry be included in lab science course work.

and be in good disciplinary standing. In order to be accepted for admission to the School of Science, students must first complete the processing of appropriate materials as indicated below. Acceptance to the school also requires the signature of the chairperson of the department approving the request to pursue a degree program and the signature of the associate dean for academic programs and student development of the School of Science.

- An IUPUI or other Indiana University campus student should file a record change form, which may be obtained from the Office of the Associate Dean for Academic Programs and Student Development of the School of Science or the student's current school.
- A Purdue University campus student must make an official application through the IUPUI Office of Admissions.

From Other Colleges and Universities

Students who have earned transfer credit for 12 credit hours and have a cumulative grade point average of 2.0 on a 4.0 scale from other institutions may be considered for admission to the School of Science. Admittance to the school is contingent upon acceptance into a departmental program. Students should submit the following with their application for admission:

- A copy of their high school record showing satisfactory completion of entrance requirements;
- An official transcript of work completed in each institution previously attended;
- Evidence of good academic and disciplinary standing at the institution last attended.

Credit from other institutions is evaluated by the Office of Admissions, and its applicability toward degree requirements in the School of Science is determined by the major department and the Office of the Associate Dean for Academic Programs and Student Development.

Transfer Credit

Acceptability of transfer credits from another college or university is determined by the student's major department and the Office of the Associate Dean for Academic Programs and Student Development. However, transfer credit will be allowed for the master's degree only after one semester of satisfactory work in residence at IUPUI.

From IUPUI to Other Indiana University and Purdue University Campuses

Students transferring from IUPUI to other Indiana University and Purdue University campuses should consult the appropriate departments at those campuses about equivalence of courses.

International Students

International students seeking admission to the School of Science at IUPUI must submit the International Application for Admission, which is available from the Office of International Affairs, Union Building 207, 620 Union Drive, IUPUI, Indianapolis, IN 46202-5167; telephone (317) 274-7000; fax (317) 278-2213; e-mail: intlaaff@iupui.edu.

Graduate Students

To be considered for admission, a candidate must have a baccalaureate degree from an accredited

institution and must show promise of ability to engage in advanced work and evidence of adequate preparation to pursue graduate study in the field chosen. The minimum standard for unconditional admission to the graduate school is a graduation grade point average of 3.0 (B) or the equivalent. An applicant not meeting these requirements should take the aptitude tests section of the Graduate Record Examination (GRE). Individual departments may set higher grade point requirements and may require the submission of additional evidence of academic performance, such as GRE scores.

A minimal score of 550 on the Test of English as a Foreign Language (TOEFL) is required for admission to the graduate school for applicants whose native language is not English. Departments may set higher requirements. Applicants in the Indianapolis area may substitute the IUPUI English as a Second Language (ESL) Placement Examination for the TOEFL. A brochure about this test is available from the Office of International Affairs, Union Building 207, 620 Union Drive, Indianapolis, IN 46202-5167; telephone (317) 274-7000.

Application should normally be made at least three months before the beginning of the session in which the student wishes to enroll. However, late applications will also be accepted. Applicants will be advised of the action taken on their applications by the dean of the Purdue University Graduate School. Applications to the Department of Geology will be considered by the Department of Geology and forwarded to the IUPUI office of the Indiana University Graduate School; applicants will be notified of the results by the graduate advisor in the Department of Geology.

Qualified students may be authorized to pursue a Ph.D. degree at IUPUI in areas where a program has been arranged with Purdue, West Lafayette, or the Indiana University School of Medicine. For further details, contact the department in which study is desired.

Applicants should be aware that, under Indiana law, criminal convictions may result in ineligibility for admission to certain programs at IUPUI. For the School of Science, criminal convictions may also result in ineligibility for enrollment in certain courses or participation in certain projects. Questions regarding school policy on such matters should be addressed to the associate dean for academic programs and student development.

Financial support in the form of teaching and research assistantships is available through the departments of the School of Science. Students who want to be considered for IUPUI fellowships must submit GRE (verbal/quantitative/analytic) scores. Area examination scores may also be submitted for consideration.

Degree-seeking Graduate Student Application

Application to all graduate programs must be made by electronic applications accessible through the School of Science Web site (www.science.iupui.edu). Application fees are submitted on line at the time of application. If necessary, paper applications may be obtained from each department.

Applicants must submit complete, official transcripts of all previous college and university studies and three letters of academic reference for evaluation by the major department.

Graduate Nondegree Program

The graduate nondegree classification is normally used for two groups of students:

(1) Students who are working on prerequisites or are in the process of filing for admission into a graduate degree program; (2) nondegree students whose intent is to take course work for personal improvement. A student who wishes to become a candidate for an advanced degree should consult with the chosen major department at the time of application for admission as a graduate nondegree student. The major department will advise applicants of the procedure for obtaining status as a degree-seeking student. Admission as a graduate nondegree student is obtained through the IUPUI Graduate Office, Union Building 518, 620 Union Drive, Indianapolis, IN 46202-5167; telephone (317) 274-1577.

No more than 12 hours of credit earned under this classification may be used on a plan of study for a Purdue University degree program without approval of the major department and the Purdue University Graduate School. Similarly, not more than 9 hours of credit earned under this classification may be used in a plan of study for an Indiana University degree program without approval of the major department.

Bulletin Designation and Program Planning

Bulletin Designation

All colleges and universities establish certain academic requirements that must be met before a degree is granted. These regulations concern such things as curricula and courses, majors and minors, and campus residence. Advisors, directors, and deans will aid students in meeting these requirements, but students are responsible for fulfilling them. At the end of the course of study, the faculty and the Board of Trustees vote on the conferring of degrees. If requirements have not been satisfied, degrees will be withheld pending adequate fulfillment. For this reason, students need to acquaint themselves with all regulations and to remain informed throughout their university career.

This bulletin lists the requirements and regulations in effect for students who are admitted to the School of Science in August 2002 (fall semester). Students who enter after this date may be subject to different requirements; students who entered prior to August 2002 may elect to follow the graduation requirements that were in effect at the time of their admission to their degree program or the graduation requirements that became effective thereafter. However, the requirements chosen must be from only one bulletin. If a student has not completed an associate degree program within four years of admission, or a baccalaureate degree program within eight years of admission, the student may be obliged by the major department to meet the requirements of a subsequent bulletin. Additionally, students in good standing who

have not been enrolled at the university for two or more consecutive years must satisfy the requirements of the School of Science bulletin in effect upon their return.

Program Planning and Counseling Guidelines

The experience of academic advisors and of successful students suggests the following guidelines for effective planning of undergraduate programs:

1. Students should be thoroughly familiar with all academic requirements that must be met before a degree is granted.
2. Students should seek appointments with academic advisors in their major departments before the dates established by the university calendar for registration. In such conferences students should, as a minimum objective, make certain that they review their degree requirements and that they have made an appropriate plan for the next semester.
3. Each student should understand that the responsibility for determining an appropriate academic program and for meeting every degree requirement rests with the student; faculty or staff members acting in the capacity of advisors are obligated only to assist students in meeting this responsibility. Any student who needs clarification of any of the requirements for the degree program is urged to obtain this clarification from an academic advisor or from the Office of the Associate Dean for Academic Programs and Student Development; School of Science; Science Building, Room 222; 402 N. Blackford Street, telephone (317) 274-0625.

Undergraduate Programs

Baccalaureate Degree

General Requirements

1. A minimum of 124 credit hours (122 for geology) must be completed. Approval must be obtained from the Office of the Associate Dean for Academic Programs and Student Development to use as credit toward graduation any course that was completed 10 or more years previously.
2. A minimum grade point average of 2.0 is required.
3. A minimum of 24 credit hours must be taken in a major subject (see departmental requirements) with a minimum grade point average of 2.0. No grade below C– is acceptable in the major subject.
4. At least four courses totaling a minimum of 12 credit hours in the major subject must be completed at IUPUI (see departmental requirements).
5. Residence at IUPUI for at least two semesters and completion, while at IUPUI, of at least 32 credit hours of work in courses at the 300 level or higher are required.
6. With the approval of the associate dean for academic programs and student development, students who have had at least four semesters of resident study may complete up to 15 credit hours of the senior year at another approved college or university.

7. Courses taken on the Pass/Fail option may be applied only as general electives and not toward degree area requirements of the school or department. Courses taken on the Pass/Fail option may apply to the 32 credit hours residency requirement listed in item 5 if the course is at the 300-level or higher.
8. No more than 64 credit hours earned in accredited junior colleges can be applied toward a degree.
9. Students may enroll in Independent Study (correspondence) courses for general electives up to a maximum of 12 credit hours with permission of the associate dean for academic programs and student development. Independent Study (correspondence) courses may not apply to the 32 credit hours residency requirement listed in item 5.
10. With permission of the appropriate department, credit may be earned through special credit examination. Credits earned by special credit examination may be used toward the total credit hours required and to satisfy area requirements for a degree.
11. The following courses do not count for any credit toward any degree program in the School of Science: AGR 101; BIOL N120; CSCI N100-level courses; CPT 106; all Indiana University remedial and developmental COAS courses; EDUC U205, X100, X150, X151, X152; ENG W001, W130; MATH M010, 001, 002, 110, 111, 123, 130, 132; and PHYS 010.
Note that CHEM C100 may count for general elective credit if the student has not already established credit in CHEM C101 or CHEM C105/C106, or equivalent courses.
12. Courses taken outside of the Schools of Science and Liberal Arts must receive departmental approval. No more than 6 credit hours of studio, clinical, athletic, or performing arts course work will be approved. Consult a School or departmental advisor.
13. An application for a degree must be filed with the Director of Student Records in the School of Science, Science Building, Room 222, by February 1 if graduation is anticipated in May or August, or by October 1 if graduation is anticipated for December. Candidates for December, May, or August graduation of a particular academic year may participate in the May Commencement. Students should also be registered in the appropriate section of CAND 991 (0 credit hours) during their final semester before graduation. See the Schedule of Classes for listings on CAND 991, Candidate for Graduation.
14. In general, credit is not allowed for both of two overlapping courses. Examples of course overlaps include:

BIOL N100	and	BIOL K101/K103
BIOL N212/213/ 214/215	and	BIOL N217 and N261
CHEM C101	and	CHEM C105 and/or C106
CHEM C102	and	CHEM C341/C343
CHEM C110	and	CHEM C341
CHEM C360	and	CHEM C361
CHEM C325	and	CHEM C410/C411
MATH M119	and	MATH 221 or MATH 163
MATH 151	and	MATH 153/154

MATH 221/222 and MATH 163/164
 PHYS P201/P202
 or 218/219 and PHYS 152/251
 STAT 301 and PSY B305

In addition, any course that is retaken is considered to be overlapped. Consult with your academic advisor regarding other overlapping courses.

15. See statements about required First Year Experience Course and Capstone Experience in description of the Bachelor of Arts Degree and Bachelor of the Science Degree programs.

Area Requirements for Baccalaureate Degrees

The faculty of the School of Science has adopted the following degree requirements for the Bachelor of Arts and Bachelor of Science degrees. Students may follow the School of Science and departmental requirements that are in effect when they enter the School of Science, or they may choose new requirements that become effective after that date. However, the requirements must be chosen from only one bulletin. A student who has not completed a baccalaureate degree program within eight years of entering the School of Science may be obliged by the major department to meet the requirements of a subsequent bulletin. Additionally, students in good standing who have not been enrolled at the university for two or more consecutive years must satisfy the requirements of the School of Science bulletin in effect upon their return.

School of Science requirements are the minimal requirements in various areas, and individual departments *may require more*, as stated in their degree descriptions. Students should consult with departmental advisors in planning their courses of study.

Bachelor of Arts Degree and Bachelor of Science Degree

The requirements for these baccalaureate degree programs include the common general education core approved by the faculties of both the School of Liberal Arts and the School of Science. This general education core, together with the major, is a curriculum based on the IUPUI Principles of Undergraduate Learning (see the front part of this bulletin for a description of these principles).

First-Year Experience Course

Each beginning freshman and transfer student (with less than 18 credit hours) in both the Bachelor of Arts and Bachelor of Science programs in the School of Science is required to take either SCI 120 Windows on Science (1 cr.) or an equivalent freshman experience course that may be offered by a department in which the student is a major. Beginning psychology majors are required to take PSY B103 Orientation to a Major in Psychology (1 cr.).

Area I

English Composition and Communication Skills

Both Bachelor of Arts and Bachelor of Science students are required to take two courses in English composition worth at least 3 credit hours each and COMM R110 Fundamentals of Speech Communications (3 cr.). The English composition

requirement is partially satisfied by completing ENG W131 (or ENG W140). The second composition course must have ENG W131 (or ENG W140) as a prerequisite. An appropriate course in technical or research writing may be used to complete the second composition course requirement. Consult departmental guidelines. A grade of C or better must be obtained in both composition courses.

Area II

Foreign Language

1. A first-year proficiency in a foreign language is required for the Bachelor of Arts degree program. Note that American Sign Language is considered a foreign language.

This requirement may be satisfied in one of the following ways:

- i. by completing first-year (8-10 credit hours) courses in a single language with passing grades;
- ii. by completing a second- or third-year course with a grade of C or better;
- iii. by taking a placement test and placing into the 200 level or higher.

See the School of Liberal Arts section of this bulletin for items related to the placement test, courses numbered 117, non-native speakers, and credit for lower division language courses.

2. Check the department section of the bulletin for any reference to a language proficiency requirement for a Bachelor of Science degree program.

Area III

IIIA Humanities, Social Sciences, and

Comparative World Cultures Four courses totaling 12 credit hours are required. The courses are to cover each of four areas:

1. HIST H114 History of Western Civilization II (3 cr.)
2. One course in Humanities from List H
3. One course in Social Sciences from List S
4. One course in Comparative World Cultures from List C

Courses taken from lists H, S, and C must be outside the student's major.

It is recommended that the student see an academic advisor for updated lists.

Note that some courses may appear on more than one list. A cross-listed course may apply to only one of the required areas specified by the lists.

List H: Humanities

Afro-American Studies (AFRO)

A150 Survey of the Culture of Black Americans (3 cr.)

American Studies (AMST)

A103 Topics in American Studies (3 cr.)

Art History (HER)

H100 Art Appreciation (3 cr.)

H101 History of Art I (3 cr.)

H102 History of Art II (3 cr.)

Classical Studies (CLAS)

C205 Classical Mythology (3 cr.)

Communication Studies (COMM)

T130 Introduction to Theatre (3 cr.)

English (ENG)

L105 Appreciation of Literature (3 cr.)

L115 Literature for Today (3 cr.)

Film Studies (CMLT)

C190 Introduction to Film (3 cr.)

Folklore (FOLK)

F101 Introduction to Folklore (3 cr.)

Foreign Languages and Cultures (FLAC)

F200 World Cultures through Literature (3 cr.)

History (HIST)

H105 American History I (3 cr.)

H106 American History II (3 cr.)

H108 Perspectives on the World to 1800 (3 cr.)

H113 History of Western Civilization I (3 cr.)

H217 The Nature of History (3 cr.)

Philosophy (PHIL)

P110 Introduction to Philosophy (3 cr.)

P120 Personal and Social Ethics (3 cr.)

Religious Studies (REL)

R133 Introduction to Religion (3 cr.)

R173 American Religion (3 cr.)

R180 Introduction to Christianity (3 cr.)

R212 Comparative Religions (3 cr.)

Women's Studies (WOST)

W105 Introduction to Women's Studies (3 cr.)

List S: Social Sciences

Afro-American Studies (AFRO)

A150 Survey of the Culture of Black Americans (3 cr.)

Anthropology (ANTH)

A104 Culture and Society (3 cr.)

Communication Studies (COMM)

C180 Introduction to Interpersonal Communication (3 cr.)

Economics (ECON)

E101 Survey of Current Economic Issues and Problems (3 cr.)

E201 Introduction to Microeconomics (3 cr.)

E202 Introduction to Macroeconomics (3 cr.)

English (ENG)

G104 Language Awareness (3 cr.)

Folklore (FOLK)

F101 Introduction to Folklore (3 cr.)

Geography (GEOG)

G110 Introduction to Human Geography (3 cr.)

G130 World Geography (3 cr.)

History (HIST)

H117 Introduction to Historical Studies (3 cr.)

Political Science (POLS)

Y101 Principles of Political Science (3 cr.)

Y103 Introduction to American Politics (3 cr.)

Y213 Introduction to Public Policy (3 cr.)

(Note: POLS Y213 and SPEA V170 are equivalent courses. Students may not receive credit for both.)

Y219 Introduction to International Relations (3 cr.)

Psychology (PSY)

- B104 Psychology as a Social Science (3 cr.)
 B310 Life Span Development (3 cr.)

Public and Environmental Affairs, School of (SPEA)

- V170 Introduction to Public Affairs (3 cr.)
 (Note: POLS Y213 and SPEA V170 are equivalent courses. Students may not receive credit for both.)

Sociology (SOC)

- R100 Introduction to Sociology (3 cr.)
 R121 Social Problems (3 cr.)

Women's Studies (WOST)

- W105 Introduction to Women's Studies (3 cr.)

List C: Comparative World Cultures**Anthropology (ANTH)**

- A104 Culture and Society (3 cr.)

Classical Studies (CLAS)

- C205 Classical Mythology (3 cr.)

Foreign Languages and Cultures (FLAC)

- F200 World Cultures through Literature (3 cr.)

Geography (GEOG)

- G110 Introduction to Human Geography (3 cr.)

History (HIST)

- H108 Perspectives on the World to 1800 (3 cr.)

Political Science (POLS)

- Y217 Introduction to Comparative Politics (3 cr.)

Religious Studies (REL)

- R133 Introduction to Religion (3 cr.)
 R212 Comparative Religions (3 cr.)

IIIB Junior/Senior Integrator (3 cr.) One course from a list of Junior/Senior Integrator courses is required for this area (see academic advisor for details). The Junior/Senior Integrator is designed to integrate the areas of humanities, social sciences, and science. Prerequisites: at least junior standing; ENG W131; a second composition course applicable to Area I; one course applicable to Area IIIC Physical and Biological Sciences; one course applicable to area IIID Mathematical Sciences; one course in the major; HIST H114; and two courses taken from two of the H, S, and C lists. For a particular semester, Junior/Senior Integrator courses may be found under INTG offerings in the *Schedule of Classes*.

IIIC Physical and Biological Sciences Both Bachelor of Arts and Bachelor of Science students are required to complete at least four science courses totaling a minimum of 12 credit hours outside the major department. At least one of the courses must have a laboratory component. Not acceptable are AST A130; BIOL N100, N120, N200; CHEM C100; GEOL G130; PHYS 010, 140; and all agriculture courses. Except for laboratory courses combined with corresponding lecture courses, 1 credit hour and, in general, 2 credit hour courses do not apply to this area. *In addition, students must obtain grades of C– or higher in their Area IIIC courses; a single grade of D+ or D will be allowed for one course only.* Check with the major department for additional restrictions or requirements.

- | | |
|-----------|---|
| Biology | Geology |
| Chemistry | Physics (including astronomy, for Bachelor of Arts students only) |

Note that GEOG G107 Physical Systems of the Environment (3 cr.) / GEOG G108 Physical Systems of the Environment: Laboratory (2 cr.) may apply to Area IIIC with approval of the student's major department. Also, GEOG G185 Global Environmental Change (3 cr.) is an acceptable substitute for GEOL G185 Global Environmental Change (3 cr.).

IIID Mathematical Sciences Bachelor of Arts students must have at least one course of at least 3 credit hours in mathematics and one course of at least 3 credit hours in computer science.

Bachelor of Science students must have at least two courses beyond algebra and trigonometry, totaling 6 credit hours. In addition, one course of at least 3 credit hours in computer science is required. Courses in applied statistics are not acceptable.

MATH M010, 001, 002, 110, 111, 123, 130, 132 do not count for any credit toward any degree in the School of Science. Computer Science (CSCI) N100-level courses do not count in this area, as well as CSCI N241; CPT 106. *In addition, students must obtain grades of C– or higher in their Area IIID courses; a single grade of D+ or D will be allowed for one course only.* Check with the major department for additional restrictions or requirements.

Computer Science Mathematical Sciences

Area IV

Major Department Consult the listing of the major department for courses required within the major subject as well as courses required by the major department in the other areas.

Capstone Experience Course

Each undergraduate major in the School of Science is to be provided a **Capstone Experience** (research, independent study/project, practicum, seminar, or field experience). The capstone, required of all majors, is to be an independent, creative effort of the student that is integrative and builds on the student's previous work in the major. See departmental sections of the bulletin for specific information about capstone courses.

Minors

See the departmental sections of this bulletin for information on minor fields of study. Minors are awarded only with the completion of a baccalaureate degree. Independent Study (correspondence) courses may not be used to fulfill a minor program.

Requirements for minors offered by departments in the School of Science are as follows:

1. A minimum of 18 credit hours must be taken in a minor subject.
2. A minimum of 6 credit hours in the minor subject must be taken at IUPUI.
3. No grade below C– is acceptable in the minor subject.
4. A minimum grade point average of 2.0 is required for the complete minor program.

Check with the department offering the minor for additional restrictions or requirements.

Certificate Programs

See departmental sections of bulletin.

Associate Degree

Some associate degree programs are in the approval process. Consult the department of interest.

General Requirements:

1. A minimum of 62 credit hours (60 for geology) must be completed. Acceptance must be obtained from the Office of the Associate Dean for Academic Programs and Student Development to use as credit toward graduation any course that was completed 10 or more years previously.
2. A minimum grade point average of 2.0 is required.
3. A minimum of 15 credit hours must be taken in a major subject (see departmental requirements) with a minimum grade point average of 2.0. No grade below C– is acceptable in the major subject.
4. At least three courses totaling a minimum of 9 credit hours must be completed at IUPUI (see departmental requirements).
5. Residence at IUPUI is required for at least two semesters and the enrollment in and completion of at least 32 credit hours of course work required for the completion of the degree.
6. With the approval of the associate dean for academic programs and student development, students who have had at least four semesters of resident study may complete up to 15 credits in their terminal year at another approved college or university.
7. Courses taken on the Pass/Fail option can be applied only as general electives and not toward degree area requirements of the school or department. Courses taken on the Pass/Fail option may apply to the 32 credit hours residency requirement listed in item 5.
8. No more than 32 credit hours earned in accredited junior colleges can be applied toward an associate degree.
9. Students may enroll in Independent Study (correspondence) courses for general electives up to a maximum of 6 credit hours with permission of the associate dean for academic programs and student development. Independent Study (correspondence) courses may not apply to the 32 credit hours residency requirement listed in item 5.
10. With permission of the appropriate department, credit may be earned through special credit examination. Credits earned by special credit examination may be used toward the total credit hours required and to satisfy area requirements for a degree.
11. The following courses do not count for any credit toward any degree program in the School of Science: AGR 101; BIOL N120; all Indiana University remedial or developmental COAS courses; CSCI N100-level courses; CPT 106; EDUC U205, X150, X151, X152; ENG W001, W130; MATH 001, 002, 110, 111, 123, 130, 131, 132; and PHYS 010.
12. Courses taken outside of the Schools of Science and Liberal Arts must receive departmental

approval. No credits are allowed for clinical, athletic, or performing arts course work. See the department advisor for details.

13. In general, credit is not allowed for both of two overlapping courses. See the departmental advisor for details and item 14 under "General Requirements for the Baccalaureate Degree."
14. An application for a degree must be filed with the Director of Student Records in the School of Science, Science Building, Room 222, by February 1, if graduation is anticipated in May or August, or by October 1, if graduation is anticipated for December. Candidates for December, May, or August graduation of a particular academic year may participate in the May Commencement. Students should also be registered in the appropriate section of CAND 991 (0 credit hours) during their final semester before graduation. See the *Schedule of Classes* for listings on CAND 991, Candidate for Graduation.

Area Requirements for Associate Degrees

The faculty of the School of Science has adopted the following degree requirements for the associate degree. Students may follow the School of Science and departmental requirements that are in effect when they enter the School of Science, or they may choose new requirements that become effective after that date. However, the requirements must be chosen from only one bulletin. A student who has not completed an associate degree program within four years of entering the School of Science may be obliged by the major department to meet the requirements of a subsequent bulletin. Additionally, students in good standing who have not been enrolled at the university for two or more consecutive years must satisfy the requirements of the School of Science bulletin in effect upon their return.

School of Science requirements are the minimal requirements in various areas, and individual departments *may require more*, as stated in their degree descriptions. Students should consult with departmental advisors in planning their courses of study.

Associate Degree

First-Year Experience Course

Each beginning freshman and transfer student (with less than 18 credit hours) in an associate degree program in the School of Science is required to take either SCI 120 Windows on Science (1 cr.) or an equivalent freshman experience course that may be offered by a department in which the student is a major. Beginning psychology majors are required to take PSY B103 Orientation to a Major in Psychology (1 cr.).

Area I

English Composition and Communication Skills

Two courses in English composition worth at least 3 credit hours each and COMM R110 Fundamentals of Speech Communication (3 cr.) are required. The English composition requirement is partially satisfied by completing ENG W131 (or ENG W140). The second composition course must have ENG W131 (or ENG W140) as a prerequisite. An appropriate course in technical or research writing may be used to

complete the second composition course requirement. Consult departmental guidelines. A grade of C or better must be obtained in both composition courses.

Area II

Foreign Language The School of Science requires no foreign language for an associate degree.

Area III

IIIA Humanities, Social Sciences, and

Comparative World Cultures One course of at least 3 credits taken from the Humanities List H, Social Sciences List S, or the Comparative World Cultures List C; or HIST H114, History of Western Civilization II (3 cr.). (See lists under Area IIIA, Bachelor of Arts Degree and Bachelor of Science Degree requirements.)

IIIB Junior/Senior Integrator Not required for an associate degree.

IIIC Physical and Biological Sciences* Two courses outside the major department totaling at least 6 credit hours are required. At least one of the courses must have a laboratory component. Not acceptable are AST A130; BIOL N100, N120, N200; CHEM C100; GEOL G130; PHYS 010, 140; and all agriculture courses. Except for laboratory courses combined with corresponding lecture courses, 1 credit hour and, in general, 2 credit hour courses do not apply to this area. *In addition, students must obtain grades of C– or higher in their Area IIIC courses; a single grade of D+ or D will be allowed for one course only.* Check with the major department for additional restrictions or requirements.

Biology	Geology
Chemistry	Physics

Note that GEOG G107 Physical Systems of the Environment (3 cr.) / GEOG G108 Physical Systems of the Environment: Laboratory (2 cr.) may apply to Area IIIC with approval of the student's major department. Also, GEOG G185 Global Environmental Change (3 cr.) is an acceptable substitute for GEOL G185 Global Environmental Change (3 cr.).

*For exceptions to this Area, refer to the description of the Associate degree program offered by the specific department.

IIID Mathematical Sciences One course of at least 3 credit hours in mathematics. The student must obtain a grade of C– or higher for the course. Note that MATH M010, 001, 002, 110, 111, 123, 130, and 132 do not count for any credit toward any degree in the School of Science.

Area IV

Major Department Consult the listing of the major department for courses required within the major subject as well as courses required by the major department in other areas.

Graduate Programs

Master of Science Degrees

Purdue University Master of Science degrees are offered in all School of Science departments except Geology, which offers an Indiana University Master of

Science degree. All departments award either a thesis or nonthesis option.

Doctor of Philosophy Degrees

A Purdue University Ph.D. program in Clinical Rehabilitation Psychology is offered by the Psychology Department. Purdue University Ph.D. Programs pursued at IUPUI, arranged through Purdue, West Lafayette, are available in Biology, Chemistry, Computer Science, Mathematics, Physics and an additional area of Psychology.

Indiana University Ph.D. Programs pursued at IUPUI in departments or programs of the Indiana University School of Medicine in which School of Science faculty hold adjunct appointments are available.

Joint M.D. – Ph.D. Degrees—Several departments participate in the joint M.D. – Ph.D. program with the Indiana University School of Medicine. In this program students concurrently earn an Indiana University Doctor of Medicine degree in the School of Medicine and a Ph.D. degree arranged through the School of Science. Students interested in this option should consult the program in which they wish to earn the Ph.D.

General Requirements for Graduate Programs

1. Students must be seeking graduate degrees.
2. The student must meet the general requirements of the Indiana University Graduate School or the Purdue University Graduate School, depending on the degree. Specific requirements of the individual department in which the student enrolls must also be met. Special departmental requirements are listed under the major department.
3. At least 30 academic credits are required for the Masters Degree and at least 90 academic credits are required for the Ph.D. Some programs may require more credits. The maximum number of transfer credits allowed is 12 hours, but some programs may allow fewer. Acceptability of transfer credits from another college or university is determined by the student's major department and the Office of the Associate Dean for Academic Programs and Student Development. No work may be transferred from another institution unless the grade is a B or higher.
4. Students must meet graduate school resident study requirements. At least one-half of the total credit hours used to satisfy a Purdue Masters Degree must be earned while in residence at IUPUI. At least 30 credit hours of IU graduate work must be completed while enrolled on a campus of Indiana University to satisfy the Masters Degree. At least one-third of the total credit hours used to satisfy degree requirements must be earned (while registered for doctoral study) in continuous residence on the IUPUI campus. The major department should be consulted for other more specific rules.
5. All non-native speakers of English must submit results of the Test of English as A Foreign Language (TOEFL). A minimal score of 550 on the TOEFL is required. Departments may set higher standards. Applicants in the Indianapolis area may substitute the IUPUI English as a Second Language

(ESL) Placement Examination for the TOEFL. A brochure about this test is available from the:

Office of International Affairs
Union Building 207
620 Union Drive
Indianapolis, IN 46202-5167
telephone (317) 274-7294

6. Each student must file a plan of study that conforms to the departmental and disciplinary requirements. This is normally done in consultation with a faculty advisory committee. A tentative plan of study should be drawn up in advance of registration for the first semester of graduate work. This should be done by the student and the graduate advisor. Students and advisors should pay careful attention to the deadlines established by the graduate schools for filing plans of study.
7. Students must meet the grade and grade point average requirements. Only grades of A, B, or C are acceptable in fulfilling graduate school requirements in any plan of study. An advisory committee or department may require higher performance than C in certain courses. Grades of Pass (P) are not acceptable. Specific cumulative grade point average requirements, if any, are up to the individual departments.
8. Students must fulfill departmental requirements regarding oral and written examinations. These requirements vary by program and students should consult the major department. The graduate school has no general requirement for oral and written examinations for the nonthesis master's degree.

Graduate Nondegree Study

A student who has previously earned a bachelor's degree may enroll in graduate courses without making formal application as a degree-seeking student. Application as a graduate nondegree student is, however, required and may be accomplished through the IUPUI Graduate Office, Union Building 518, 620 Union Drive, IUPUI, Indianapolis, IN, 46202-5167; telephone (317) 274-1577. Students should consult the major department to determine how many credits earned in a nondegree status may be transferred into a graduate degree program.

Academic Regulations

See the front of the bulletin for general information about grades. The following policies are specific to the School of Science.

Pass/Fail Option During the four years of their undergraduate program, all undergraduates in good standing (with an overall GPA of 2.0 or higher) may enroll in up to eight elective courses to be taken with a grade of P or F. The Pass/Fail option is open for a maximum of two courses per year, including summer sessions. For this option, the year is defined as August 15 to August 15. The Pass/Fail option form is available in School of Science departmental offices and in the Office of the Associate Dean for Academic Programs and Student Development; Science Building, Room 222; telephone (317) 274-0625.

The course selected for Pass/Fail grading must be an elective. It may not be used to satisfy any of the school area requirements, nor may it be counted as a part of the student's concentration area. If the course is at the 300-level or higher, with a grade of P, the course may apply to the 32 hour School of Science residency requirement. A grade of P cannot be changed subsequently to a grade of A, B, C, or D.

Withdrawal Students may officially withdraw from classes without penalty during the first half of a semester or session if they secure the approval of their advisor; a grade of W (Withdrawal) is recorded on the final grade report. Students may withdraw from classes during the third quarter of a semester or session if they secure the approval of their advisor and the instructor of the course; a grade of W or F may be assigned by the instructor. The grade so assigned is recorded on the final grade report. Students may withdraw from classes during the last quarter of a semester or session if they secure the approval of their advisor, the instructor of the course, and the dean of their school; a grade of W or F may be assigned by the instructor. The grade so assigned is recorded on the final grade report. *Students will be allowed to withdraw from class during the last quarter of the semester only under extenuating circumstances. A written justification from a doctor, member of the clergy, advisor, etc., must be presented.* The necessary form for withdrawal from a course is available in School of Science departmental offices and in the Office of the Associate Dean for Academic Programs and Student Development; Science Building, Room 222; telephone (317) 274-0625.

Students who alter their schedules, whether by personal incentive or by departmental directive, must follow correct withdrawal procedures. Students who do not follow these procedures risk jeopardizing their record by incurring a failing grade in a course not properly dropped, or they risk not receiving credit for work done in a course that has not been properly added.

Grade Replacement Policy The Grade Replacement Policy is available only to undergraduate students. It may be exercised for a maximum of 15 credit hours, no more than two times for a given course, with each attempted replacement counting toward the 15 credit hour limit. Any grade may be replaced with the last grade earned for the course. The replaced grade will then be excluded from the cumulative grade point average. However, the course listing and the replaced grade will remain on the student's academic record with an "X" notation indicating that the grade is excluded from the cumulative grade point average.

The policy took effect beginning with the fall 1996 semester, and any courses being used to replace an earlier grade must have been taken in the fall of 1996 or later. Grades previously granted FX will be honored and will count toward the 15 credit hour limit. Once invoked, a student may not subsequently request

reversal of the grade replacement granted for a given course. A student interested in accessing the Grade Replacement Policy should contact the School of Science Office of the Associate Dean for Academic Programs and Student Development; Science Building, Room 222; telephone (317) 274-0625.

Degree Grade Point Average

The School of Science computes a school grade point average, which is the basis for recommending the awarding of a degree. The computation of this grade point average, including repeated courses, is done during the senior year at IUPUI. Only the most recent grade in repeated courses counts in computing the school grade point average for the purpose of graduation. The official grade point average, which is based upon all grades earned, appears on all transcripts.

Special Credit

Special credit by examination, by credentials, and/or by experience may be awarded in order to help qualified students earn their degrees more quickly. Each instructional department determines which of its courses are available for special credit and establishes procedures to determine student eligibility, to administer evaluations for special credit, and to grade them. The evaluations are as comprehensive as those given in the course. Credit earned by examination will be assigned an A (highest passing grade) or S (passing grade). Credit earned by credentials and/or experience will be assigned an S. An S (passing) grade is considered to be equivalent to performance at a minimum grade level of C.

Responsibility for initiating a request for special credit in a specific course normally rests with the student. To find out if special credit is warranted, the student should consider meeting first with the department chair, advisor, or course instructor.

For additional information, refer to the front part of this bulletin under "Special Credit."

Auditing Courses

University policy permits the auditing of courses, but audited courses may not be retaken later for academic credit. Written permission from the instructor to audit a class must be obtained before the student attempts to register. See the front of the bulletin for general information about auditing courses.

Petition for Grade Change

Faculty Petition A faculty member may request a change of grade for the student. This request can be honored only after approval of the department chairperson and the School of Science associate dean for academic programs and student development.

Student Petition In certain cases, a student may request a change of grade. Students should contact the School of Science Office of the Associate Dean for Academic Programs and Student Development (Science Building, Room 222) for information about procedures and time limits for applicable cases.

Science Scholars List and Dean's Honor List

The School of Science recognizes exceptional academic performance in baccalaureate and associate degree programs prior to graduation from the university by periodically publishing the Science Scholars List and the Dean's Honor List. The Science Scholars List names full-time students (taking 12 or more credit hours) or part-time students (taking at least 5 credit hours) who have completed at least 26 credit hours of course work at IUPUI and who have a semester and cumulative grade point average (GPA) of at least 3.75. The Dean's Honor List contains the names of the students who have achieved a GPA of 3.5 or higher during a semester in which they carry 12 or more credit hours. Part-time students (taking 5 or more credit hours) who have completed at least 26 credit hours of course work at IUPUI will be included on the Dean's Honor List if they have a semester and cumulative GPA of 3.5 or higher.

Courses assigned a deferred grade (R) will count toward the 12 credit hour minimum required of full-time students. Courses taken on a Pass/Fail basis will not count toward the 12 credit hour minimum. Students who received an Incomplete (I) will not be placed on the Science Scholars List or the Dean's Honor List. No Science Scholars List or Dean's Honor List is published for the summer sessions.

Candidates for Baccalaureate Degrees

Students are considered to be candidates in good standing for baccalaureate degrees awarded by the School of Science when they have been admitted as regular students by the Office of Admissions, when their last semester's grade point average is not less than a 2.0, and when their cumulative grade point average is not below this same level.

Double Major

A double major is awarded to students who simultaneously complete the requirements for two Purdue Bachelor of Science degree programs or two Purdue Bachelor of Arts degree programs in the School of Science. Students who plan to double major must have their programs approved by both major departments and the associate dean for academic programs and student development. A form to petition for a double major can be obtained from the Office of the Associate Dean for Academic Programs and Student Development; School of Science; Science Building, Room 222; telephone (317) 274-0625. A student declaring a double major must satisfy the departmental requirements for the second major as stated in the School of Science bulletin in effect when the second major is approved.

Double Degree

A student may be awarded two degrees by simultaneously completing baccalaureate degree programs from two different schools at IUPUI or by simultaneously completing two baccalaureate major programs from the School of Science, one leading to a Purdue Bachelor of Arts degree and the other leading to a Purdue Bachelor of Science degree, or one leading to a Purdue degree and the other leading to an Indiana University degree. A student who plans to

pursue a double degree must receive approval from the two major departments and the academic deans of the schools awarding the degrees. A form to petition for a double degree can be obtained from the Office of the Associate Dean for Academic Programs and Student Development; School of Science; Science Building, Room 222; telephone (317) 274-0625. A student who declares a double degree and who is accepted by a department in the School of Science for the additional degree program must satisfy the requirements for that program as stated in the School of Science bulletin in effect when the additional degree program is approved.

Change of Major within the School of Science

A student who desires to change a major within the School of Science should petition the Office of the Associate Dean for Academic Programs and Student Development; School of Science; Science Building, Room 222; telephone (317) 274-0625. If the petition is approved, the student may be placed under the bulletin in effect during the time of admission into the new major.

Second Baccalaureate Degree

Normally the holder of a baccalaureate degree who wishes to pursue a further educational goal is encouraged to consider a graduate degree program. However, a student interested in pursuing a second degree should apply through the IUPUI Office of Admissions. In order to be admitted to the degree program, the applicant must meet admission requirements of the School of Science and of the department. If admitted, the candidate will be placed under the bulletin in effect during the time of admission into the second degree program.

Degrees Awarded with Distinction

IUPUI recognizes outstanding performance in course work by awarding bachelor's degrees with distinction. Purdue degrees are awarded with Distinction and Highest Distinction. Indiana University degrees are awarded with Distinction, High Distinction, and Highest Distinction. (Cords designating graduation with distinction are the only cords to be worn at commencement.)

To be eligible, candidates must complete all the requirements of their degree programs and meet the following conditions: (1) A minimum of 65 credit hours of course work from Purdue University or Indiana University applicable to the graduation index (degree grade point average) must be on record; (2) the minimum graduation index for Distinction (Purdue and IU degrees) shall be no less than the 90th percentile of the graduation indexes of all the graduates in the school for the spring semester, provided that the index is at least 3.30; (3) of those who qualify for distinction under these rules for the spring semester, the six-tenths of the baccalaureate graduates having the highest graduation indexes shall be designated as graduating with High Distinction (IU degrees only); (4) of those who qualify for distinction under these rules for the spring semester, the three-tenths of the baccalaureate graduates having the highest graduation indexes shall be designated as

graduating with Highest Distinction (Purdue and IU degrees); (5) the minimum graduation indexes determined for the spring semester for graduation with Distinction, High Distinction, and Highest Distinction shall be applied for graduation with those respective levels of distinction for the subsequent summer sessions and fall semester.

Academic Standing

Academic Probation

A student whose cumulative grade point average (GPA) falls below a 2.0 will be placed on probation. The student may continue studies provided the student achieves a GPA of at least 2.0 for each semester while on probation. Once the cumulative GPA is at least 2.0, the student will be removed from probationary status. A student will be advised of probationary status by letter from the associate dean for academic programs and student development.

Dismissal

A student on probation who has completed a minimum of 12 IUPUI grade point average (GPA) hours is subject to dismissal if the student fails to attain a GPA of at least 2.0 in any two consecutive IUPUI semesters (fall and spring), including the semester that the student was first placed on probation.

A student can also be dismissed from the university when, in the opinion of the associate dean for academic programs and student development of the School of Science, the student has ceased making progress in the degree program.

Readmission

A student dismissed for the first time must remain out of school at least one regular (fall or spring) semester. During the semester out of school, the student may petition the Office of the Associate Dean for Academic Programs and Student Development for readmission. A student dismissed for the second time must remain out of school at least two regular semesters (fall and spring), but may petition for readmission during the second semester out of school. Readmission after a second dismissal is extremely rare.

In order that there is sufficient time for considering a petition for readmission, a student eligible to submit a petition should do so before June 15 for the fall semester, October 15 for the spring semester, or March 15 for either summer session.

A student readmitted will be so informed by letter from the associate dean for academic programs and student development. The letter will indicate any conditions and restrictions affecting readmission and continuance in the degree program.

Special Programs

Teaching Certification

A student earning a baccalaureate degree in the School of Science may also receive a standard senior high/junior high/middle school teacher's certificate. The standard certificate qualifies the holder to teach in the subject matter areas for which it is endorsed in any public middle school, junior high school, or secondary school in Indiana. The standard certificate

is granted upon completion of a baccalaureate degree based on a program of teacher education and the recommendation of the graduating institution. It is valid for five years from the completion of program requirements and may be renewed.

Students who plan to obtain a teaching certificate must be admitted formally to the Teacher Education Program. Admission to teacher education is dependent on successful completion of an admission test, course prerequisites, and a formal application to the School of Education Undergraduate Program. Application forms and test information are available from the student's departmental advisor or from the School of Education, 902 W. New York Street, Indianapolis, IN 46202-5155.

A candidate for a senior high/junior high/middle school teacher's certificate *and* a bachelor's degree must satisfy the appropriate degree requirements of the IUPUI School of Science, the departmental requirements, and the School of Education teacher education/certification requirements. The student must, therefore, plan a complete program with a School of Science advisor and a School of Education advisor to ensure that all requirements are satisfied.

A candidate for a senior high/junior high/middle school teacher's certificate must earn a baccalaureate degree that includes a minimum of 124 credit hours. The student must have a grade point average of 2.5 or above in all university work taken. The student must earn a grade point average of 2.5 in all education courses (with at least a C in each methods course), and a grade point average of 2.5 in all the course work of the teaching major and of the teaching minor, if one exists.

For a standard certificate, the state of Indiana sets the following general education, professional education, and subject matter area requirements:

General Education (40 cr.)

Consult with your academic advisor for any changes in this area.

Humanities: a minimum of 18 credit hours chosen from, for example, English, fine arts, folklore, foreign language, music, philosophy, speech, and theatre.

Social and Behavioral Sciences: a minimum of 9 credit hours chosen from, for example, anthropology, economics, geography, history, political science, psychology, and sociology.

Life and Physical Sciences: a minimum of 9 credit hours—subject matter area meets this requirement; some departments specify lab sciences.

Electives as needed for a total of 40 credit hours.

Professional Education (45 cr.)

See an academic advisor from the School of Education for course sequence and scheduling.

EDUC P255 Educational Psychology for Middle and Secondary School Teachers (3 cr.) *and* Field Experience (1 cr.)

EDUC W200 Microcomputing for Education: An Introduction (3 cr.)¹

EDUC K205 Introduction to Exceptional Children (3 cr.) *and* Field Experience (1 cr.)

EDUC H340 Education and American Culture (3 cr.)
EDUC M300 Teaching in a Pluralistic Society (3 cr.)
EDUC M314 General Methods for Senior High/Junior High/Middle School Teachers (3 cr.) *and* Field Experience (1 cr.)

EDUC M469 Content Area Literacy (3 cr.) *and* Field Experience (1 cr.)

EDUC M440-M480 Methods of teaching (major academic area) (4 cr.)

Student Teaching: Junior High/Middle School/Secondary (16 cr.)

Note: Admission to the Teacher Education Program is a prerequisite for all professional education courses except for EDUC W200.

All professional education courses must be completed before a student may enroll in the EDUC Student Teaching courses. During the semester of student teaching, the student normally does not enroll in other courses.

All science teaching programs must include courses in nutrition and drug and alcohol education.

Consult a School of Education advisor about any changes in or additions to these requirements.

Predental and Premedical Programs

Admission to dental and medical schools is highly competitive. The preprofessional student is therefore urged to elect a degree program, rather than to strive for the minimal requirements of these schools. Preprofessional counseling is available from advisors in the departments of biology and chemistry, which also offer preprofessional degree programs. Advisors help students prepare for the professional school admissions process. They can also suggest alternative, rewarding career opportunities should the application to the professional school be unsuccessful. Graduate students holding nonscience degrees who are electing courses in the School of Science to prepare for professional school are also invited to use this advising service.

Preoptometry, Prepharmacy, and Preveterinary Programs

See the Department of Biology listings for information on these programs.

Pre-Physical Therapy Program

Students may take any undergraduate program and include a set of core courses needed as prerequisites for a graduate degree in physical therapy at the Indiana University School of Allied Health Sciences. Undergraduate degree programs in biology, chemistry, or psychology in the School of Science may be of interest to the pre-physical therapy student. Advising for the undergraduate degree and planning the requirements for application/admission to a graduate degree program in physical therapy is available in those departments. An academic advisor in the IUPUI School of Allied Health Sciences is also available for consultation.

The following is a list of courses fulfilling prerequisites required for graduate studies in physical therapy.

BIOL N217	Human Physiology	(5 cr.)
BIOL N261	Human Anatomy	(5 cr.)
CHEM C105/ C125	Principles of Chemistry I/Lab	(5 cr.)

CHEM C106/ C126	Principles of Chemistry II/Lab	(5 cr.)
PSY B310	Life Span Development	(3 cr.)
PHYS P201/ P202	General Physics I/II	(5 cr./5 cr.)
or 218/219	General Physics	(4 cr./4 cr.)
PSY B104	Psychology as a Social Science	(3 cr.)
PSY B105	Psychology as a Biological Science	(3 cr.)
PSY B305 or STAT 301	Statistics Elementary Statistical Methods I	(3 cr.) (3 cr.)

Two courses, 3 credit hours each, in the Humanities/Social Sciences areas.

The pre-physical therapy student should consult with an academic advisor for updates of pre-physical therapy requirements.

Honors Program

The IUPUI Honors Program is open to students in both the Purdue and Indiana University degree programs. Students with an overall grade point average (GPA) of 3.0 after their first full semester of work, entering freshmen with a minimum combined SAT score of 1180, or ACT of 26, or those who have graduated in the top 15 percent of their high school class, are automatically invited to participate in the Honors Program. Students with a GPA of less than 3.0 may be permitted to take honors courses. They should, however, discuss the matter with their academic advisor and the honors advisor before doing so.

To obtain an honors degree in computer science, mathematics, or physics, a student must have a cumulative grade point average of 3.3 and a minimum of 24 credit hours, with a 3.5 average in honors work. Six hours of honors credit must be outside the student's major field. A senior thesis track is also available. To obtain an honors degree in biology, chemistry, geology, or psychology, a student should follow the requirements described below.

Biology

Students with a GPA of 3.3 and 12 hours of credit, or entering high school students with a minimum SAT score of 1180, or who are graduating in the top 10 percent of their high school class, qualify for the Biology Honors Program. Students wishing to participate in the Biology Honors Program must first receive approval from the Department of Biology. Students may choose from two tracks. In Track 1 (honors with thesis), students must complete 21 credit hours of honors work including 6 credit hours outside of biology and 15 credit hours in biology. These biology hours are to include 4 credit hours of BIOL K101/K103 honors sections of lab/recitation, 6 credit hours in honors sections of BIOL K493, and 5 credit hours in H-Option¹ biology courses and/or

¹H-Option contracts are the most popular and frequent way that students earn honors credit. An H-Option requires that a student work out with the instructor of a course a specific contract for a paper, field project, oral presentation, etc., early in the semester. The contract is not merely an extension of the regular class work, but an opportunity not provided by regular assignments. All the necessary signatures of approval, including that of the director of the Honors Program, must be submitted to the Honors Program office before consent to begin the project will be given.

¹See a School of Science advisor for possible substitute courses.

500–600-level biology courses. In Track 2 (honors without thesis), students must complete 24 credit hours of honors work. These hours are to include 6 credit hours outside of biology, 4 credit hours of BIOL K101/K103 honors sections of lab/recitation, and 14 credit hours in H-Option biology courses and/or 500–600-level biology courses.

Chemistry

Students with a minimum GPA of 3.0 may be admitted into the Chemistry Honors Program with approval of the Honors Program and the Department of Chemistry. After entering the program, maintenance of a GPA of 3.3 in all courses and of 3.5 in honors courses is necessary. The Curriculum Committee of the chemistry department will approve any honors Bachelor of Science degrees awarded in chemistry. In addition to meeting general honors requirements, students who intend to graduate with honors in chemistry must complete 24 honors credit hours, consisting of 1 credit hour in the C301 or C302 Chemistry Seminar, 6 credit hours in C409 Chemical Research, 5 credit hours of H-Options¹ in undergraduate courses and/or graduate chemistry courses, and 12 credit hours of honors credit in courses outside of chemistry.

Geology

For the Bachelor of Science degree, honors students must complete 24 credit hours of honors work, 18 credit hours in geology and 6 credit hours in other approved honors courses. For the Bachelor of Arts degree, the requirements are 15 credit hours in geology and 9 credit hours outside geology in other approved honors courses. The following upper-division geology courses are approved for H-Option contracts¹: G205 Reporting Skills in Geoscience, G209 History of the Earth, G221 Introductory Mineralogy, G222 Introductory Petrology, G304 Principles of Paleontology, G323 Structural Geology, G334 Principles of Sedimentation and Stratigraphy, G403 Optical Mineralogy and Petrography, G404 Geobiology, plus G410 Undergraduate Research in Geology (1 cr.), G406 Introduction to Geochemistry, G413 Introduction to Geophysics, G415 Principles of Geomorphology, G416 Economic Geology, G430 Principles of Hydrology, and G499 Honors Research in Geology. The student must complete 3 credit hours in G499 Honors Research in Geology to satisfy the requirements for the honors component. The overall grade point average must be 3.3 with a 3.5 in all honors work.

Psychology

To graduate with honors, students may choose one of two tracks. *Track 1*: The student must earn at least 24 hours of honors credit, 6 credit hours of which must be in psychology and 6 credit hours of which must be outside of psychology (the remaining 12 credit hours can be either). At least 3 hours of this credit must be for PSY B499 Honors Research, which should culminate in an honors thesis. *Track 2*: The student must earn at least 21 hours of honors credit, 6 credit hours of which must be in psychology and 6 credit hours of which must be outside of psychology (the remaining credit hours

can be from either). At least 6 hours of the credit must be for a research project culminating in a psychology thesis. In this track the university honors council must approve the project proposal. In both tracks only grades of A or B will count for honors credit. To graduate with honors, the student must have an overall GPA of 3.3 with at least a 3.5 in honors and psychology courses.

In general, students may take no more than 6 credit hours of honors work a semester. Students may earn honors credit by taking special Honors Program courses (H300, H399, H400), by taking specially designated sections of multisection courses, by doing special overseas or internship work, or by contracting for honors credit using an H-Option contract¹ in conjunction with regular classes.

Students completing honors work or an honors degree will, upon request, receive an honors course record listing all honors work, to be included with official university grade transcripts.

For additional information, contact the Honors Program, University College, UC 3140, 815 W. Michigan Street, IUPUI, Indianapolis, IN 46202-5164; telephone (317) 274-2660.

School of Science Undergraduate Research Program

The School of Science has established a school-wide undergraduate research program to encourage and recognize undergraduates who participate in research projects with faculty in the school.

A student may qualify for transcript certification of completion of the Undergraduate Research Program. The School of Science Research Committee, which certifies the student's right to the certification, requires a Research Portfolio. This portfolio is to be presented to the Committee for approval by April 1 for May graduation, by July 1 for August graduation and by November 1 for December graduation in the semester in which the student expects to graduate. Upon approval of the portfolio, the Committee forwards its recommendation of certification to the registrar. Certification is awarded concurrently with the degree.

Students may participate in all or part of this program. To receive transcript certification, the student must fulfill all of the following requirements:

1. Register for and complete five credit hours of formal research in his/her department. Each department in the school can provide detailed information about research credits. The student should consult his/her department advisor.
2. Prepare a written product from the research. This may include a senior thesis or journal publication.
3. Attend one outside scientific meeting at the state or national level.
4. Participate in a formal symposium. The student must present a paper in a formal competition that the school will sponsor during the spring semester each year. Students in this program will

be encouraged to present work at a professional scientific meeting.

5. Prepare a Research Portfolio. Further information, including how to prepare the Research Portfolio, may be obtained from the program director: Associate Dean Kathryn Wilson; School of Science; Science Building; Room 222; telephone (317) 278-1028.

Extracurricular Activities

A wide variety of activities are available to School of Science students, both activities sponsored by the School of Science and those open to all students. Students seeking involvement in campus-wide activities, such as the IUPUI Undergraduate Student Assembly, should contact the Office of Student Life and Diversity in the basement of University College, UC 002, or call (317) 274-3931.

Clubs and Organizations in the School of Science

The following activities are of particular interest to students in the School of Science:

Science Undergraduate Student Council and Science Graduate Student Council

These councils, composed of student representatives from each department in the School of Science, advise the dean and the School on matters of concern to students. Each council also decides how to allocate the student activity fee to support School projects, departmental clubs and other initiatives.

Departmental Clubs

Most departments within the School of Science sponsor clubs and other activities for majors and interested students. Contact each department for additional information.

Scholarships and Awards

The faculty nominate and select students for various annual scholarships and awards offered by School of Science departments or by individuals and organizations interested in advancing science education.

School of Science

The School of Science Dean's Scholarships recognize School of Science majors attending IUPUI who excel academically and show promise of success in their future careers.

John D. Barnwell Memorial Scholarship for a student in the School of Science who has effectively integrated the sciences and the arts into his or her undergraduate career.

Carl H. Johnson Achievement Scholarship for a School of Science major who is registered with the IUPUI Office of Adaptive Educational Services as a student with a learning disability.

Frank G. Lambertus Memorial Scholarship for a student who has shown outstanding academic progress since the previous year.

¹H-Option contracts are the most popular and frequent way that students earn honors credit. An H-Option requires that a student work out with the instructor of a course a specific contract for a paper, field project, oral presentation, etc., early in the semester. The contract is not merely an extension of the regular class work, but an opportunity not provided by regular assignments. All the necessary signatures of approval, including that of the director of the Honors Program, must be submitted to the Honors Program office before consent to begin the project will be given.

Indianapolis Project SEED Scholarship for a School of Science major who has successfully participated in the American Chemical Society Indiana Chapter Project SEED program.

School of Science Alumni Association Outstanding Science Student Scholarship for a School of Science major who plans to graduate within one year of receiving the scholarship and has demonstrated how his/her personal life experiences have impacted his/her educational career.

Robert W. Tuveson Memorial Scholarship for a student majoring in the biological sciences. Consideration is given to the student's financial need, academic performance, and future promise.

Department of Biology

Award for Outstanding Academic Achievement for the student with the best overall academic record in the Department of Biology.

Biology Research Awards for undergraduate and graduate students making the most outstanding contributions in scientific research.

Ronald E. Kirk Memorial Award for the outstanding freshman biology student.

Richard O. McCracken Memorial Scholarship for the outstanding sophomore or junior biology major.

Student Services Award is given to the faculty member, student, or staff member whose contributions and activities have had significant positive impact on the experiences of biology students beyond the classroom.

Department of Chemistry

American Institute of Chemists Student Research and Recognition Award for an outstanding senior student majoring in chemistry.

Patricia A. Boaz Award for the graduating senior with highest academic achievement in a Bachelor of Arts degree program.

Chemical Rubber Company Outstanding Freshman Award for the outstanding student in general chemistry.

Loren T. Jones Award for the graduating senior with the highest academic achievement in a Bachelor of Science degree program.

Loren T. Jones Memorial Scholarship for summer support of an outstanding chemistry major.

Scott Alan Kent Memorial Scholarship for a promising sophomore or junior chemistry major.

Outstanding Undergraduate Analytical Chemistry Award sponsored by the American Chemical Society.

Frank J. Welcher Award for the graduating senior with greatest professional promise.

Department of Computer and Information Science

Gersting Undergraduate Student Award for an outstanding major in computer and information science.

Gersting Graduate Student Award for an outstanding graduate student in computer and information science.

Department of Geology

Academic Achievement Award for the graduating senior with highest academic achievement.

Geology Alumni Scholarship for a senior geology major.

Indiana Geology and Gem Society Scholarship for a sophomore or junior geology major.

Leadership and Service Award for the graduating senior with outstanding leadership and service to the department.

Arthur Mirsky Geology Fellowship for an outstanding master's student.

Department of Mathematical Sciences

Outstanding Undergraduate Award for an outstanding junior or senior (or both) based on achievements in advanced mathematics.

Anna K. Suter Award for the outstanding senior mathematics major.

Anna K. Suter Scholarship for undergraduate mathematics majors. It is renewable based on academic performance.

Best Academic Performance by a Graduate Student Awards for exceptional scholastic performance by a beginning graduate student and an advanced graduate student.

Igor Kuznetsov Graduate Student Teaching Award for outstanding performance in classroom teaching by a graduate student.

Department of Physics

D. J. Angus-Sciencetech Award for the most improved sophomore or junior student in physics.

The Forrest Meiere Prize for Outstanding Physics Major for the undergraduate major with the best academic record.

The University Physics Award for the best student in the physics 152/251 course sequence.

Outstanding Graduate Student Award, based on achievements in research and academics.

Department of Psychology

Robert I. Long Award for the most outstanding graduating psychology major.

Robert G. Neel Award for the graduating psychology major with highest academic achievement.

Student Research Award for the psychology major who has demonstrated the most skill as a research scientist.

Paul McKinley Award for the most outstanding graduate student in the Ph.D. psychobiology of addictions program.

Graduate Psychology Awards for the most outstanding graduate student in the programs of industrial/organizational psychology and clinical rehabilitation psychology.

Arnold M. Quittner Dissertation Award for a Ph.D. student in the clinical rehabilitation psychology program who has successfully defended his/her Ph.D. proposal and has a clear plan for publication of his/her dissertation.

Other Recognition

In addition, many science honor students compete successfully for scholarships awarded by IUPUI. Freshmen with a high level of achievement are eligible for election to the IUPUI chapters of Alpha Lambda Delta and Phi Eta Sigma honoraries. Psychology majors may be elected to the Psi Chi Honorary, which recognizes outstanding students in that discipline.

Distinguished Faculty and Staff Awards

The School of Science proudly salutes faculty and staff members who have distinguished themselves in the areas of teaching, research, or service. The following full-time faculty and staff members have been chosen by their colleagues and students to receive awards in recognition of their outstanding contributions to the academic mission of the School of Science and the university.

W. David Laverell	1975
L. Kent Morrison	1976
Gordon H. Fricke	1977
Erwin Boschmann	1978
Frederick W. Kleinhaus	1978
Terry L. Hall	1979
Robert D. Hall	1980
John F. Kremer	1980
Patricia A. Boaz	1981
Martin J. O'Donnell	1981
Forrest T. Meiere	1982
Peter W. Rabideau	1982
Frederick C. Thatcher	1982
Erwin Boschmann	1983
Robert D. Hall	1983
David J. Malik	1983
Martin J. O'Donnell	1983
Stanley Aeschleman	1984
Elaine V. Alton	1984
Patricia A. Boaz	1984
Marvin D. Kemple	1984
John F. Kremer	1984
B. D. Nageswara Rao	1984
Richard Bodonyi	1985
Frederick W. Kleinhaus	1985
Arthur Mirsky	1985
Richard G. Pflanzner	1985
D. W. Rajcecki	1985
J. Roger Ware	1985
Shirley A. Bayer	1986
Joan B. Lauer	1986
J. Roger Ware	1986
C. D. Aliprantis	1987
Owen Burkinshaw	1987
Judith L. Gersting	1987
John F. Kremer (two awards)	1987
Richard R. Patterson	1987
J. Roger Ware	1987
Theodore W. Cutshall	1988
Pascal de Caprariis	1988
Robert D. Hall	1988
Charles Schauf	1988
C. D. Aliprantis	1989
Rosalie Bandy*	1989

plus prerequisite basic sequence or background to enter sequence above. The second laboratory in organic chemistry (CHEM C344) is required for admission to some medical schools and is strongly recommended for students in most other programs. Consult a departmental advisor.

Area IIID Mathematical Sciences MATH 151. (However, the starting point for mathematics courses should be worked out with a departmental advisor based on the math placement test and/or background of the student.) The computer science requirement may be satisfied with CSCI N201, CSCI N207, or CSCI N211.

Area IV Biology Requirements

Required Core Sequence:

- K101-K103 Concepts of Biology I and II
- K322 Genetics
- K341 Principles of Ecology

Upper-Level Courses

- A. At least one lecture course from each of areas I-III listed below.
- B. Three laboratory courses beyond K101-K103 selected from areas I-IV below. To receive credit for a laboratory for which there is an accompanying pre- or corequisite lecture, the lecture must be completed with a minimum grade of C-. A maximum of 2 credit hours of K493 Independent Research may be applied to the biology credit hour requirement. K493 will count as one laboratory course.
- C. Capstone Experience. This requirement is met by taking either K493 Independent Research (1 cr.) or K490 Capstone (1-3 cr.) in the senior year. K490 addresses the integration of knowledge in the principles of undergraduate education as well as values and ethics as they relate to the student's major. It is generally taken in the senior year. The Capstone is an independent, creative effort by the student that is integrative and builds on the student's previous work in the major; it may include research projects, independent study and projects, a practicum, a seminar, and/or a field experience.
- D. Electives consisting of sufficient lecture and laboratory course work to total 30 credit hours (including core sequence credit hours). These credits may be selected from any of the areas I-IV below.

Areas/Electives:

I. Molecular Area

Undergraduate Level

- K338 Introductory Immunology
- K339 Immunology Laboratory
- K483 Biological Chemistry
- K484 Cellular Biochemistry

Undergraduate and Graduate Level

- 507 Principles of Molecular Biology
- 516 Molecular Biology of Cancer
- 530 Introductory Virology
- 550 Plant Molecular Biology
- 559 Endocrinology
- 561 Immunology
- 564 Molecular Genetics of Development
- 570 Biological Membranes
- 651 Cellular Immunology

II. Cellular Area

Undergraduate Level

- K324 Cell Biology
 - K325 Cell Biology Laboratory
 - K356 Microbiology
 - K357 Microbiology Laboratory
- ##### *Undergraduate and Graduate Level*
- 532 Topics in Bacteriology
 - 566 Developmental Biology
 - 571 Developmental Neurobiology

III. Organismal Area

Undergraduate Level

- K331 Embryology
- K332 Plant Growth and Development
- K333 Embryology Laboratory
- K345 Behavioral Ecology
- K350 Comparative Animal Physiology

Undergraduate and Graduate Level

- 556 Physiology I
- 557 Physiology II

IV. Biotechnology Electives

Undergraduate Level

- K309 Computer Applications in Biology and Medicine
- K493 Independent Research

Undergraduate and Graduate Level

- 540 Topics in Biotechnology
- 548 Techniques in Biotechnology
- 568 Wound Repair, Regeneration, and Artificial Tissues

Additional laboratory courses for the B.A.

- K323 Genetics Laboratory
- K342 Ecology Laboratory

The Department of Biology will accept 20 credit hours toward graduation outside the Schools of Science and Liberal Arts. A maximum of 15 credit hours of biology earned **previously** at other institutions is applicable toward the major for the B.A. degree. Once admitted, students are expected to fulfill their course requirements within the major at IUPUI.

Bachelor of Science

Degree Requirements

Freshmen are required to take SCI 120 Windows on Science (1 cr.)

Area I See the School of Science requirements under "Undergraduate Programs" in this bulletin. The second semester of English composition may be satisfied with ENG W132 (or ENG W150), ENG W231, or TCM 320.

Area II No foreign language is required. However, knowledge of a foreign language is strongly recommended for any student planning to attend graduate school.

Area IIIA Humanities, Social Sciences, and Comparative World Cultures (12 cr.)

HIST H114 History of Western Civilization II (3 cr.)
One course (3 cr.) from a list of Humanities courses, List H

One course (3 cr.) from a list of Social Science courses, List S

One course (3 cr.) from a list of Comparative World Cultures courses, List C

Area IIIB Junior/Senior Integrator (3 cr.)

This course is from a list of Integrator courses. Consult academic advisor.

Area IIIC Physical and Biological Sciences

Physics Two semesters of basic physics (PHYS P201-P202 or PHYS 152-251).

Chemistry Two semesters of Principles of Chemistry (C105/C125 3/2 cr.; C106/C126 3/2 cr.), two semesters of organic chemistry with laboratory (CHEM C341, C342, C343, C344), plus prerequisite basic sequence or background to enter sequence above. (A course in analytical chemistry or biochemistry is also strongly recommended; determination to be made in consultation with departmental advisor.)

Area IIID Mathematical Sciences Coursework through two semesters of calculus (MATH 221-222 or MATH 163-164). Starting point to be worked out with departmental advisor based on the math placement test and/or background of the student. The computer science requirement may be satisfied with CSCI N201, CSCI N207, or CSCI N211.

Area IV Biology Requirements

Required Core Sequence:

- K101-K103 Concepts of Biology I and II
- K322 Genetics
- K341 Principles of Ecology
- K493 Independent Research; 2 cr. min., 3 cr. max.
- K494 Senior Research Thesis

Upper-Level Courses

- A. At least one lecture course from each of areas I-III listed below.
- B. Four laboratory/lecture courses beyond K101-K103 selected from areas I-IV. To receive credit for a laboratory for which there is an accompanying pre- or corequisite lecture, the lecture must be completed with a minimum grade of C-.
- C. K494 Senior Research Thesis. This will consist of the completion of K493 activities (2 to 3 credit hours) and the preparation of a written report on the results of the research project. The title and nature of the K493-K494 sequence is to be determined in consultation with the department research sponsor.
Capstone Experience: This requirement is met upon completion of K493.
- D. Electives consisting of sufficient lecture and laboratory course work to total 40 credit hours (including core sequence credit hours). These credits may be selected from any of the areas I-IV below.

Areas/Electives:

I. Molecular Area

Undergraduate Level

- K338 Introductory Immunology
- K339 Immunology Laboratory
- K483 Biological Chemistry
- K484 Cellular Biochemistry

Undergraduate and Graduate Level

- 507 Principles of Molecular Biology
- 516 Molecular Biology of Cancer
- 530 Introductory Virology
- 550 Plant Molecular Biology

559 Endocrinology
561 Immunology
564 Molecular Genetics of Development
570 Biological Membranes
651 Cellular Immunology
II. Cellular Area
<i>Undergraduate Level</i>
K324 Cell Biology
K325 Cell Biology Laboratory
K356 Microbiology
K357 Microbiology Laboratory
<i>Undergraduate and Graduate Level</i>
532 Topics in Bacteriology
566 Developmental Biology
571 Developmental Neurobiology
III. Organismal Area
<i>Undergraduate Level</i>
K331 Embryology
K332 Plant Growth and Development
K333 Embryology Laboratory
K345 Behavioral Ecology
K350 Comparative Animal Physiology
<i>Undergraduate and Graduate Level</i>
556 Physiology I
557 Physiology II
IV. Biotechnology Electives
<i>Undergraduate Level</i>
K309 Computer Applications in Biology and Medicine
K493 Independent Research
<i>Undergraduate and Graduate Level</i>
540 Topics in Biotechnology
548 Techniques in Biotechnology
568 Wound Repair, Regeneration, and Artificial Tissues
Additional laboratory courses for the B.S.:
K323 Genetics Laboratory
K342 Ecology Laboratory

The Department of Biology will accept 20 credit hours toward graduation outside the Schools of Science and Liberal Arts. A maximum of 20 credit hours of biology earned **previously** at other institutions is applicable toward the major for the B.S. degree. Once admitted, students are expected to complete their course requirements within the major at IUPUI.

Minor in Biology

The Department of Biology offers an undergraduate minor in biology with the following requirements:

BIOL K101 Concepts of Biology I (5 cr.)
BIOL K103 Concepts of Biology II (5 cr.)
BIOL K322 Genetics (3 cr.)
BIOL K341 Principles of Ecology (3 cr.)
Additional K-prefixed biology course of at least 3 credits

At least half of the minimum 19 credit hours required to minor in biology must be completed at IUPUI. The minor requires a minimum grade point average of 2.0 and all grades must be C– or better. Correspondence courses may not be used to fulfill requirements for the minor.

Honors in Biology

The Department of Biology offers two separate tracks that lead to a degree with honors. Admission to either program requires a combined SAT of 1180 (1100 for those who took the SAT before April 1, 1995), or placement in the top 10 percent of the high school class for incoming freshmen, or a minimum GPA of 3.3 based on at least 12 hours of university work for continuing students. Students must maintain an overall GPA of 3.3 and an honors GPA of 3.5 to remain in good standing in the program.

Track 1 in biology is an honors-with-thesis program consisting of a total of 21 hours of honors registrations. Six credit hours are taken outside of the major; 4 hours are taken as the special experimental laboratory and recitation sections of freshman biology (BIOL K101 and K103); 5 hours are taken as H-Option registrations or 500-level courses; and 6 hours are taken as K493 Independent Research and K494 Senior Research Thesis. Track 2 is an honors program without thesis and consists of a total of 24 hours of honors registrations. This option requires 6 credit hours of honors outside of the major, the K101 and K103 sections, and 14 hours of H-Option or 500-level course registrations.

Biology Plans of Study

No single semester-by-semester plan of study will guide all students through the degree options because of the flexibility encouraged within the programs.

However, one possible sequence of courses for each option is given below; variations from these examples of plans of study should be made in consultation with a departmental advisor.

Sample Program for the Bachelor of Arts Degree (124 cr. required)

Freshman Year

First Semester	
SCI 120 Windows on Science	1
BIOL K101 Concepts of Biology I	5
CHEM C105 Principles of Chemistry I	3
CHEM C125 Experimental Chemistry I	2
MATH 153 Algebra and Trigonometry I	3
ENG W131 Elementary Composition I	3
	<hr/> 17

Second Semester

BIOL K103 Concepts of Biology II	5
CHEM C106 Principles of Chemistry II	3
CHEM C126 Experimental Chemistry II	2
MATH 154 Algebra and Trigonometry II	3
ENG W132 Elementary Composition II	3
	<hr/> 16

Sophomore Year

Third Semester	
BIOL K322 Genetics	3
BIOL K323 Genetics Laboratory	2
CHEM C341 Organic Chemistry I	3
CHEM C343 Organic Chemistry Laboratory I	2
Humanities—List H	3
Elective or Major's Course	3
	<hr/> 16

Fourth Semester

Elective or Major's Course	3
CHEM C342 Organic Chemistry II	3
CHEM C344 Organic Chemistry Laboratory II	2
COMM R110 Fundamentals of Speech Communication	3
CSCI Course	3
	<hr/> 14

Junior Year

Fifth Semester

BIOL K341 Principles of Ecology	3
Comparative World Cultures—List C	3
Foreign Language I	3
PHYS P201 General Physics I	5
Social Sciences—List S	3
	<hr/> 17

Sixth Semester

HIST H114 History of Western Civilization II	3
PHYS P202 General Physics II	5
Biology Course and Lab (Area II)	5
Foreign Language II	3
	<hr/> 16

Senior Year

Seventh Semester

Junior/Senior Integrator	3
Foreign Language III	4
Biology Course and Lab (Area I)	5
Elective	3
	<hr/> 15

Eighth Semester

BIOL K493 Independent Research or	1
BIOL K490 Capstone in Biology	1
Biology Course and Lab (Area III)	4
Electives	9
CAND 991 Candidate for Graduation	0
	<hr/> 14

Sample Program for the Bachelor of Science Degree (124 cr. required)

The major has 40 credit hours.

The School of Science Purdue degrees are 124 credit hours. To graduate in four years a student generally must take four semesters of 15 credits and four semesters of 16 credits. When figuring the number of credit hours that you will take each semester, be sure to consider the effect on your total number of credit hours balanced over four years.

Freshman Year

First Semester

SCI 120 Windows on Science	1
BIOL K101 Concepts of Biology I	5
CHEM C105 Principles of Chemistry I	3
CHEM C125 Experimental Chemistry I	2
ENG W131 Elementary Composition I	3
Elective or pre-calculus math	3
	<hr/> 17

Second Semester

BIOL K103 Concepts of Biology II	5
CHEM C106 Principles of Chemistry II	3
CHEM C126 Experimental Chemistry II	2
MATH 221 Calculus for Technology I	3
ENG W132 Elementary Composition II	3
	<hr/> 16

Sophomore Year**Third Semester**

BIOL K322 Genetics	3
BIOL K323 Genetics Laboratory	2
CHEM C341 Organic Chemistry I	3
CHEM C343 Organic Chemistry Laboratory I	2
MATH 222 Calculus for Technology II	3
Humanities—List H	3
	16

Fourth Semester

Biology Course and Lab (Area II)	5
CHEM C342 Organic Chemistry II	3
CHEM C344 Organic Chemistry Laboratory II	2
Social Sciences—List S	3
COMM R110 Fundamentals of Speech Communication	3
	16

Junior Year**Fifth Semester**

BIOL K341 Principles of Ecology and Lab	5
Comparative World Cultures—List C	3
PHYS P201 General Physics I	5
CSCI Course	3
	16

Sixth Semester

HIST H114 History of Western Civilization II	3
PHYS P202 General Physics II	5
Biology Course and Lab (Area III)	4
Elective	3
	15

Senior Year**Seventh Semester**

Junior/Senior Integrator	3
Biology Course and Lab (Area I)	5
BIOL K493 Independent Research	1
Elective or Major's Requirement	3
Elective or Major's Requirement	3
	15

Eighth Semester

BIOL K493 Independent Research	1
BIOL K494 Senior Research Thesis	1
Biology Majors Requirement	3
Elective or Major's Requirement	5
Elective or Major's Requirement	5
CAND 991 Candidate for Graduation	0
	15

Master of Science**Degree Options****M.S. Nonthesis in Interdisciplinary**

Biology This program requires a minimum of 30 credit hours of registration, at least 21 of which must be in biology. For students who wish to combine biology training with work in a secondary area as a mechanism to meet career objectives, up to 9 credit hours can be taken in the secondary area. Advanced-level undergraduate course work hours are limited to 6. Examples of secondary areas include, but are not limited to, chemistry, mathematics, public affairs, business, statistics, law, computer science, administration, and, for those interested in teaching, education. For those students with no secondary area of interest, all 30 credit hours may be taken in

biology. The program requires registrations in BIOL 595 Special Assignments and BIOL 696 Seminar. The former consists of an independent, creative project done in association with a faculty member. Typical examples include a limited laboratory research experience or a library research assignment. The results of the project are reported both in writing and orally in BIOL 696.

M.S. Preprofessional Nonthesis This program also consists of a minimum of 30 credit hours, all of which must be taken over two semesters. This challenging program is highly intensified and is open only to those students who meet a high admission standard based on undergraduate GPA and GRE scores. The program is available to those students planning careers in medicine, dentistry, optometry, or other health-related fields and differs from the interdisciplinary nonthesis M.S. by having no requirement for the 595 and 696 registrations.

M.S. with Thesis This 30 credit hour program requires a minimum of 9 credit hours of 500- and 600-level course work in biology, chosen in consultation with the student's graduate advisory committee, and intensive research leading to a thesis. Most full-time students should expect to spend two full years to complete this program. Areas in which research opportunities are available include: immune dysfunction, yeast molecular biology, renal physiology, wound repair and tissue regeneration, oncology, tumor immunology, plant hormones, antifungal antibiotics, developmental genetics, cell biology, membrane biochemistry and biophysics, molecular toxicology, plant tissue culture, plant physiological ecology, and plant and animal molecular biology. The overall emphasis of the department's research program focuses on questions at the cellular, biochemical, and molecular levels. Many of the projects provide a foundation in biotechnology and an excellent preparation for biomedical and industrial applications.

Co-op M.S. with Thesis This modification of the thesis M.S. is open to full-time M.S. students. Here, research is conducted at the university and at a local industrial laboratory. The project is the result of a collaborative arrangement between a faculty member and an industrial scientist. This program is open to a small group of students and is available only in cases where industrial support is committed.

Admission Requirements

1. Students must hold a baccalaureate degree from an accredited institution of higher learning and demonstrate good preparation in biological sciences, organic chemistry, physics, and mathematics.
2. Students must take the GRE aptitude tests.
3. Three letters of recommendation are required.
4. A minimum graduation grade point average of 3.0 or its equivalent is required for unconditional admission.

Transfer of Credit

Transfer credit to be used in the nonthesis option may be given for up to 9 credit hours of graduate work completed elsewhere with a grade of B or better. Such credit may be used only in the secondary area and will

be accepted only after one semester of satisfactory work is completed in residence at IUPUI. Transfer credit is not accepted in the thesis option. Up to 12 hours of biology graduate credit taken at IUPUI under graduate nondegree status may be transferred to the thesis or nonthesis options.

Grades

Only grades of A, B, or C are acceptable, although performance higher than C may be required. Pass/Fail grades are unacceptable.

Requirements**Residence Requirements**

Thirty credit hours of registration are required for the M.S. degree. Students entering with advanced standing from another graduate school are given residence credit commensurate with the graduate work accomplished.

Final Examination

A comprehensive written or oral examination in the individual's primary area may be required of nonthesis students unless their cumulative GPA is 3.0 or higher. The final examination for thesis students will consist of a thesis defense, which will be done in conjunction with BIOL 696 Seminar.

All students are required to take BIOL 696 Seminar. The creative project required of all nonthesis students will provide the basis for the public presentation.

Financial Assistance

The Department of Biology has financial support available in the form of tuition-refund assistantships, associate faculty positions, fellowships, and stipends from local industry on a limited basis.

Doctor of Philosophy—Purdue University

The degree of Doctor of Philosophy (Ph.D.), the highest earned degree conferred by Purdue University, can be pursued in the Department of Biology through Purdue University, West Lafayette. The doctoral degree is restricted to those scholars who have demonstrated superior ability in a recognized academic discipline. The Ph.D. degree is not awarded on the basis of time spent in residence or following the completion of any specific number of formal courses, nor is the degree granted on the basis of miscellaneous course studies and research effort. The entire Ph.D. program must be rationally related, should be highly research-oriented, and should culminate in a thesis of scholarly merit indicative of the candidate's ability to conduct original research in a recognized field of specialization.

Ph.D. programs are directed by professors who work in close association with selected graduate students. In practice, doctoral programs are composed of formal courses, guided individual study in a chosen field or discipline, study in such cognate subjects as may be required by the candidate's advisory committee, and original research that serves as the basis of a scholarly thesis.

As part of their graduate training, all Ph.D. candidates are expected to teach at least quarter time for one year.

Ninety credit hours of registration are required for the Ph.D. degree. Students entering with advanced standing from another graduate school are given residence credit commensurate with the graduate work accomplished.

Fields of Study

Ph.D. degrees are offered in most of the fields described for the M.S. degree. Until a major professor is named, a student is counseled by a temporary advisor. In order to help familiarize students with the department and to assist the student in the selection of a major professor, a series of laboratory rotations is available.

Admission and Qualifying Examination

To enter the Ph.D. program, a student must satisfy the admission requirements for the M.S. with thesis option and also take a qualifying examination in two areas at the end of the first year of graduate study. By the end of the second year, both must have been passed with a grade of B or better. The examination areas are as follows: (1) immunobiology, (2) biochemistry and molecular biology, (3) cell and developmental biology, (4) membrane biology.

Plan of Study

Each prospective candidate for the doctoral degree, with the approval of the head of the Department of Biology, shall select a major professor from the department who will act as the chairperson of the student's advisory committee and who will direct the research. An advisory committee of five faculty members who have been approved to guide graduate students will then be appointed.

The plan of study shall include a primary area and related area or areas. The plan will be appropriate to meet the needs of the student in a chosen field as determined by the advisory committee. The Graduate School of Purdue University does not impose any minimum number of required course credit hours, but the plan shall specify the area or field of interest in which the student proposes to study and to conduct research. The plan will include the specific courses that the student is expected to complete, all specific course and language (if any) requirements, and 2 credit hours of BIOL 696 Seminar.

The plan of study must be approved by the department or school head, the school dean, and the dean of the Graduate School at Purdue University, West Lafayette. The graduate school dean reserves the right to refer any or all plans of study to the Purdue Graduate Council for review and approval when deemed advisable. The Graduate Council has the final authority to supervise the quality of all graduate programs.

Preliminary Examination

After the student has completed most of the formal study to the satisfaction of the advisory committee and met any language requirement(s), the student becomes eligible to take the preliminary examinations. The results of these written and oral examinations will be reported to the graduate school by the examining committee with an appropriate

recommendation for the student's admission to candidacy, continued preparatory study, or discontinuation. The graduate school dean reserves the right to appoint additional members to the preliminary examining committee. The dean must be informed of the date and place of the examination and the membership of the examining committee at least two weeks before the examination. No examining committee shall have fewer than three faculty members.

The written preliminary examination will be conducted by the examining committee. In some cases, parts of the examination may be delegated to certain other staff members, but the final responsibility for the examination rests with the student's examining committee.

If the student does not pass the preliminary examinations, at least one semester must elapse before reexamination. Should the preliminary examinations be failed twice, the student may not be given a third examination, except upon the recommendation of the examining committee and with *special approval* of the Graduate Council.

Ph.D. Thesis

After admission to candidacy, the candidate must devote at least two semesters to research before the final examination.

The special research carried on as part of the doctoral work is expected to make a definite contribution to the candidate's chosen field of knowledge—a contribution of sufficient importance to merit publication. Each candidate must, therefore, prepare a thesis showing the research results.

After the research has been completed and the thesis written, the candidate shall be given a final examination in which the candidate defends the thesis and demonstrates to the examining committee all of the capabilities for which the Doctor of Philosophy degree is awarded. The examining committee shall consist of no fewer than four members. The dean of the graduate school reserves the right to appoint additional committee members and must be informed of the place and time of the final examination at least two weeks in advance.

Doctor of Philosophy—Indiana University

The Ph.D. degree conferred by Indiana University can be pursued under the direction of faculty in the Department of Biology who hold adjunct appointments with departments or programs in the Indiana University School of Medicine. All Indiana University doctoral degrees require 90 credit hours of registration; specific course and examination requirements vary with the department or program in which the student is enrolled. Contact the graduate program director in the Department of Biology for additional information.

Other Programs

Bachelor of Arts with Secondary Teaching Certification

Students planning to teach biology at the secondary school level usually enter the Bachelor of Arts degree program. Elective hours within this program will be used to satisfy the requirements of the School of Education and the state of Indiana.

Prepharmacy

The prepharmacy program comprises two years of study at IUPUI during which time students will apply to a Pharm.D. program at a school of pharmacy. The following scheme provides the course preparation for application to the School of Pharmacy and Pharmacal Sciences at Purdue University, West Lafayette. A similar program has been designed to interface with the Butler University School of Pharmacy; consult the prepharmacy advisor in the Department of Biology.

Prepharmacy Sample Program (Purdue University)

Year One

First Semester

BIOL K101 Concepts of Biology I	5
CHEM C105 Principles of Chemistry I	3
CHEM C125 Experimental Chemistry I	2
ENG W131 Elementary Composition I	3
MATH 221 Calculus for Technology I	3

Second Semester

BIOL K103 Concepts of Biology II	5
CHEM C106 Principles of Chemistry II	3
CHEM C126 Experimental Chemistry II	2
ENG W132 Elementary Composition II	3
MATH 222 Calculus for Technology II	3

Year Two

First Semester

CHEM C341 Organic Chemistry I	3
CHEM C343 Organic Chemistry Laboratory I	2
ECON E101 Survey of Current Economic Issues and Problems	3
PHYS P201 General Physics I	5
Electives	3

Second Semester

BIOL K356 Microbiology	3
BIOL K357 Microbiology Laboratory	2
CHEM C342 Organic Chemistry II	3
CHEM C344 Organic Chemistry Laboratory II	2
BIOL N261 Human Anatomy	5

Summer Sessions

BIOL N217 Human Physiology	5
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Years Three and Beyond

The Doctor of Pharmacy (Pharm.D.) degree is now required to obtain a license to practice pharmacy. This program encompasses six years of study (two pre-pharmacy and four professional). Years three through six for the Pharm.D. degree are to be completed at the School of Pharmacy and Pharmacal Sciences, Purdue University, West Lafayette.

Preoptometry

This program is specifically designed for transfer to the professional program at Indiana University Bloomington. Typically, three preoptometry years are spent at IUPUI.

Preoptometry Program Requirements

Subject	Minimum credit hours required
Inorganic chemistry	8
Organic chemistry	4
English composition	2
Calculus	4
General physics	8
Psychology	
Introductory and above	4
Statistical techniques	3
Biology/Zoology	
Introductory	4
Microbiology	4
Advanced	3
Arts and humanities	6
Social and behavioral sciences	6
Foreign language	6-8
Electives	as needed
	90 credit hours

Preveterinary Medicine

IUPUI offers an organized four-semester preveterinary curriculum for students who want to meet the requirements for admission to the Purdue University School of Veterinary Medicine. This curriculum also provides for a rigorous program in the biological and physical sciences that may be used as a basis for continued training in the Purdue University School of Agriculture should the degree of Bachelor of Science be desired.

Students who have successfully completed two or more years of preveterinary instruction at IUPUI are eligible to apply for admission to the School of Veterinary Medicine at Purdue University, West Lafayette. Admission to the School of Veterinary Medicine is highly competitive. Students are selected on the basis of college course work and grades, Graduate Record Exam (GRE) scores (General Aptitude Test only), and the extent and nature of the applicant's experience with animals and practicing veterinarians. The selection committee is also concerned with the individual's level of motivation, degree of maturity, and general character.

The requirements for admission to the preveterinary curriculum are the same as those for other programs in the School of Agriculture.

Preveterinary Sample Program

Freshman Year

First Semester

BIOL K101 Concepts of Biology I	5
CHEM C105 Principles of Chemistry I	3
CHEM C125 Experimental Chemistry I	2
ENG W131 Elementary Composition I	3
MATH 221 Calculus for Technology I	3
	16

Second Semester

BIOL K103 Concepts of Biology II	5
CHEM C106 Principles of Chemistry II	3
CHEM C126 Experimental Chemistry II	2
ENG W132 Elementary Composition II	3
MATH 222 Calculus for Technology II	3
	16

Summer Sessions

Humanities and Social Science Electives	6
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Sophomore Year

Third Semester

BIOL K322 Genetics	3
BIOL K323 Genetics Laboratory	2
CHEM C341 Organic Chemistry I	3
CHEM C343 Organic Chemistry Laboratory I	2
PHYS P201 General Physics I	5
	15

Fourth Semester

CHEM C342 ¹ Organic Chemistry II	3
CHEM C344 Organic Chemistry Laboratory II	2
COMM R110 Fundamentals of Speech Communication	3
PHYS P202 General Physics II	5
STAT 301 Elementary Statistical Methods I	3
	16

Summer Sessions

Humanities, Social Science Electives	6
BIOC B500 Biochemistry	3
	9

Junior and Senior Years

Transfer to School of Veterinary Science and Medicine, Purdue University, West Lafayette.

Courses in Biology (BIOL)

All courses designed for the biology major are identified by the letter prefix K on the course number or have no prefix. All courses identified by the letter prefix N are primarily designed to serve students uncommitted to a degree in biology or students for whom these courses are appropriate to their curricular program (e.g., allied health).

Note: P—prerequisite; C—corequisite; Fall—offered fall semester; Spring—offered spring semester; Summer—offered during one or both of the summer sessions; Day—offered as a daytime section; Night—offered as an evening section; Equiv.—course is equivalent to the indicated course taught at Indiana University Bloomington, or the indicated course taught at Purdue University, West Lafayette.

Undergraduate Level

K101 Concepts of Biology I (5 cr.) P: High school or college chemistry. Fall, day; Spring, day, night; Summer, day. An introductory course emphasizing the principles of cellular biology; molecular biology; genetics; and plant anatomy, diversity, development, and physiology.

¹CHEM C310 Analytical Chemistry and CHEM C311 Analytical Chemistry Laboratory may be substituted for CHEM C342 and CHEM C344.

K103 Concepts of Biology II (5 cr.) P: K101. Fall, day, night; Spring, day; Summer, day. An introductory biology course emphasizing structure, physiology, development, diversity, and behavior in animals, and evolution and ecology of plants and animals.

K295 Special Assignments (arr.) P: Consent of instructor. Fall, Spring. Special work, such as directed readings, laboratory or field work, or presentation of material not available in the formal courses in the department.

K309 Computer Applications in Biology and Medicine (3 cr.) P: Sophomore standing and one semester of biology. Spring, day. Provides the undergraduate with experience in the major applications of the computer to the life sciences. Topics: computer hardware, software, BASIC programming concepts, and application packages. Projects: micro and mainframe computer experiences with databases, simulations, statistical packages, computer graphics, networks, and computer interfacing to laboratory equipment.

K322 Genetics (3 cr.) P: K103, CHEM C106. Fall. Spring of even-numbered years. Principles of genetics at the molecular, cellular, organismal, and population level.

K323 Genetics Laboratory (2 cr.) P or C: K322. Fall, day. Applied principles of genetics using organisms of increasing complexity, from viruses to the fruit fly.

K324 Cell Biology (3 cr.) P: K103, CHEM C106. Spring, day. Examination of the structure and activity of eukaryotic cells and subcellular structures. Emphasis is on regulation of and interactions among subcellular events such as protein targeting, transmembrane signaling, cell movement, and cell cycle.

K325 Cell Biology Laboratory (2 cr.) P or C: K324. Spring, day. Experiments on the molecular and biochemical basis of organization and function of eukaryotic cells.

K331 Embryology (3 cr.) P: K103. Fall, Spring, day. The development of animals through differentiation of cells, tissues, organs, and organ systems will be examined.

K332 Plant Growth and Development (3 cr.) P: K101, CHEM C341. Fall, day. An examination of growth and developmental patterns in plants as affected by growth regulators, age, heredity, photoperiod, and environmental factors.

K333 Embryology Laboratory (1 cr.) P or C: K331. Spring, day. Processes of animal development are examined in a series of classical and modern experiments using cell, tissue and embryo culture, drug treatments, and microscopic techniques.

K338 Introductory Immunology (3 cr.) P: K103, CHEM C106. Fall, day, night. Principles of basic immunology with an emphasis on the cells and molecules underlying immunological mechanisms.

K339 Immunology Laboratory (2 cr.) P or C: K338. Fall, day, night. Demonstration of immunological principles by experimentation.

Exercises include cells and factors of the innate and the adaptive immune systems.

K341 Principles of Ecology (3 cr.) P: K103. Fall, day. A study of the basic concepts of the interrelation of living organisms and their environment.

K342 Ecology Laboratory (2 cr.) P or C: K341. Fall, day. Experiments in the laboratory and field to illustrate the principles and techniques of ecology.

K345 Behavioral Ecology (3 cr.) P: K341. Spring, night. An examination of the relationships among ecology, evolution, and behavior, including sexual selection and conflict, mating systems, altruism, and communication among animals.

K350 Comparative Animal Physiology (3 cr.) P: N107 or K103, CHEM C106. Spring, day. A comparative examination of principles of animal physiology from molecular to organismal levels using homeostasis, regulation, and adaptation as central themes.

K356 Microbiology (3 cr.) P: K103, CHEM C341. Spring, day, night. Introduction to microorganisms: cytology, nutrition, physiology, and genetics. Importance of microorganisms in applied fields including infectious disease.

K357 Microbiology Laboratory (2 cr.) P or C: K356. Spring, day. Laboratory experiments and demonstrations to yield proficiency in aseptic cultivation and utilization of microorganisms; experimental investigations of biological principles in relation to microorganisms.

K483 Biological Chemistry (3 cr.) P: CHEM C342. Fall, day. Chemistry of biologically important molecules including carbohydrates, lipids, proteins, and nucleic acids. Special emphasis on chemistry of intermediary metabolism.

K484 Cellular Biochemistry (3 cr.) P: CHEM C342. Spring, day, night. Emphasis on selected topics in cellular biochemistry including nucleic acid : protein interactions, protein : protein interactions, protein synthesis, biogenesis of membranes, and signal transduction. Current techniques for studying these processes in higher eukaryotes will be discussed.

K490 Capstone (1 cr.) P: Senior standing. Faculty-directed or approved independent library research on an area of public, scientific interest *or* a community service activity in local industry, government, schools, or other public science-related groups or organizations. Topics for independent research and a list of service opportunities are available in the Department of Biology Office.

K493 Independent Research (1-3 cr.) P: Consent of instructor. Fall, Spring, Summer. A course designed to give undergraduate students majoring in biology an opportunity to do research in fields in which they have a special interest.

K494 Senior Research Thesis (1 cr.) P: K493. Fall, Spring, Summer. A formally written report describing the results or accomplishments of K493.

Undergraduate and Graduate Level

507 Principles of Molecular Biology (3 cr.) P: K322, CHEM C342, or consent of instructor. Fall, night. Molecular aspects of structure and function of nucleic acids and proteins, including recombinant DNA research. Prokaryotic and eukaryotic molecular biology are given equal weight.

516 Molecular Biology of Cancer (3 cr.) P: CHEM C342 and K322 or a course in biochemistry. A detailed course examining the molecular mechanisms controlling the growth of animal cells. Emphasis on current experimental approaches to defining the molecular basis of growth regulation in developing systems and the uncontrolled proliferation of cells in metabolic disorders, such as cancer.

530 Introductory Virology (3 cr.) P: K356, CHEM C342. Fall, odd years, night. Detection, titration, and chemistry of viruses; viral host interactions: bacteriophage—bacterium, animal virus—animal cell, plant virus—plant cell; tumor viruses: infection and transformation.

532 Topics in Bacteriology (2 cr.) P: K356, CHEM C342. Fall, even years, night. Selected topics in bacterial physiology: cell division, chemotaxis, bacterial plasmids, sporulation, bacterial toxins, recombinant DNA.

540 Topics in Biotechnology (3 cr.) P: K322 and CHEM C341 or consent of instructor. Fall, night. Examines research techniques and applications for several technologies situated at currently recognized biological frontiers including recombinant DNA technology, hybridoma technology, protein engineering, agricultural research, and microbiological engineering.

548 Techniques in Biotechnology (3 cr.) P: K322, CHEM C342, or consent of instructor. Fall, day, night. Laboratory experience in techniques applicable to biotechnology: protein chemistry, molecular biology, and immunology.

550 Plant Molecular Biology (3 cr.) P: K322, C341, or consent of instructor. Fall, day, night. A comprehensive study of plant molecular biology and plant molecular genetics. Topics will include the structure and expression of plant nuclear, chloroplast, and mitochondrial genomes, and plant viruses.

556 Physiology I (3 cr.) P: K103, CHEM C342. Fall, night. Principles of physiology: nerve and muscle, temperature regulation, ion and water balance.

557 Physiology II (3 cr.) P: 556 or consent of instructor. Spring, night. A study of human cardiovascular, pulmonary, blood, and gastrointestinal systems. Higher neuronal functions and intersystem interactions will be discussed.

559 Endocrinology (3 cr.) P: 556 or equivalent, and CHEM C342. Fall. The study of hormone function. Consideration will be given to the role of hormones in growth, development, metabolism, homeostasis, and reproduction.

561 Immunology (3 cr.) P: K103, CHEM C341. Spring, night. Introduction to basic principles and experimentation in cellular and humoral immunology.

564 Molecular Genetics of Development. (3 cr.) P: K322 or similar or consent of instructor. R: BIOL 566. Spring, day, night. Examines how key regulatory genes and molecular signaling pathways regulate development in both lower eukaryotic organisms and mammalian organ systems, with emphasis on the function and evolution of signaling molecules and transcription factor superfamilies.

566 Developmental Biology (3 cr.) P: K322. Fall. Principles of development with emphasis on concepts and underlying mechanisms, including descriptive, physiological, and molecular approaches.

568 Regenerative Biology and Medicine (3 cr.) P: K324 or K331 or a biochemistry course. Spring. This course examines the mechanisms of natural regeneration (regenerative biology) and the application of these mechanisms to the development of therapies to restore tissues damaged by injury or disease (regenerative medicine).

570 Biological Membranes (3 cr.) P: CHEM C342, or consent of instructor. Spring, night. An examination of structure and function of biological membranes. Topics include lipid and protein composition and interactions, physiological properties of membranes, physiological methods of analysis, model membrane systems, and survey of specific biological membranes and their modes of action.

571 Developmental Neurobiology (3 cr.) P: consent of instructor. Fall, odd years, night. The major phases of nervous system development beginning with neurogenesis and neurogenesis and ending with the onset of physiological activity will be studied in a variety of animals, mainly avians and mammals (including man). Neural developmental disorders and behavioral ontogeny will also be considered.

595 Special Assignments (1-3 cr.) P: Consent of instructor. Fall, Spring, Summer. Special work, such as directed reading, independent study or research, supervised library, laboratory or field work, or presentation of material not available in the formal courses of the department.

Graduate Level

641 Microbial Genetics (2 cr.) P: K323, CHEM C342, and consent of instructor. Spring, odd years, night. Genetics of bacteria, bacterial viruses, and other microorganisms with emphasis on organization, replication, and function of the genetic material.

651 Cellular Immunology (3 cr.) P: 561. Spring, night. Study of cells, molecules, and mechanisms comprising the cellular immune system in normalcy and disease.

696 Seminar (1 cr.) (May be repeated for credit.) Fall, Spring. Each semester there are several separate offerings. They will likely be on the following topics: biochemistry, biology teaching, ecology and population biology, genetics, mechanisms of development, microbiology, neurobiology, and plant physiology. Oral presentations required.

697 Special Topics (1-3 cr.) (May be repeated for credit.) Fall, Spring. The frontiers of biology. Critical examination of developments in the various specialties represented by the members of the department.

Currently, advanced work in the following and related fields can be offered: molecular genetics; structure and biosynthesis of biologically significant molecules; the nature of biological specificity and enzyme catalysis; the fine structure and chemistry of subcellular particles, cells, and tissues; microbial and plant metabolism; comparative biochemistry; genetics and physiology of viruses, bacteria, fungi, protozoa, helminths, and cells of higher forms of life; the genetics, structure, development, and physiology of plants and animals, including endocrinology and work physiology; excitable membranes; neurobiology, ecology, systematics, and evolution of microorganisms, plants and animals; host-parasite relationships including immunology; and the teaching of biology. The field in which work is offered will be indicated in the student's record.

698 Research M.S. Thesis (cr. arr.)

699 Research Ph.D. Thesis (cr. arr.)

Courses for the Nonmajor

N100 Contemporary Biology (3 cr.) P: None. Fall, day, night; Spring, day, night; Summer. Selected principles of biology with emphasis on issues and problems extending into everyday affairs of the student.

N107 Exploring the World of Animals (4 cr.) P: None. Equiv. PU BIOL 109. Fall, day, night; Spring, day, night; Summer, day. This course introduces students to animals and their native environments. It surveys individual ecosystems and highlights the interactions, features, and characteristics of the animals found there. Examples of discussion topics include unique features of animals, animal relationships, societies and populations, exotic species, and behavior, including mating, communication, feeding and foraging, and migration. Environmental issues including the effects of pollution on ecosystems are also discussed. **Not** equivalent to K103.

N200 The Biology of Women (3 cr.) P: None. Fall, day, night; Spring, day, night; Summer. This course examines the biological basis for bodily functions and changes that take place throughout the life of females.

N212 Human Biology (3 cr.) P: None. Equiv. PU BIOL 201. Fall, day. First course in a two-semester sequence in human biology with emphasis on anatomy and physiology, providing a solid foundation in body structure and function.

N213 Human Biology Laboratory (1 cr.) P or C: N212. Fall, day. Accompanying laboratory for N212.

N214 Human Biology (3 cr.) P: N212. Equiv. PU BIOL 202. Spring, day. Continuation of N212.

N215 Human Biology Laboratory (1 cr.) P or C: N214. Spring, day. Accompanying laboratory for N214.

N217 Human Physiology (5 cr.) P: None. Equiv. IU PHSL P215. Fall, day; Spring, day; Summer, day. Lectures and laboratory work related to cellular, musculoskeletal, neural, cardiovascular, gastrointestinal, renal, endocrine, and reproductive function in humans.

N222 Special Topics in Biology (1-3 cr.) P: None. A variable topics course dealing with current topics in

biology. In a given semester, a topic such as disease, genetics, the environment, etc., will be dealt with as a separate course.

N251 Introduction to Microbiology (3 cr.) P: One semester general chemistry or one semester life science. Spring, night. The isolation, growth, structure, functioning, heredity, identification, classification, and ecology of microorganisms; their role in nature and significance to humans.

N261 Human Anatomy (5 cr.) P: None. Equiv. IU ANAT A215. Fall, day, night; Spring, day, night; Summer, day, night. Lecture and laboratory studies of the histology and gross morphology of the human form, utilizing a cell-tissue-organ system-body approach.

N322 Introductory Principles of Genetics (3 cr.) P: N107 or K101. Equiv. PU AGR 430. Spring, night. Basic principles of plant and animal genetics. Emphasis on transmission mechanisms as applied to individuals and populations. For students in health and agricultural sciences.

N400 Biological Skills for Teachers (3 cr.) P: Consent of instructor. Fall, night. Concepts and laboratory skills necessary to prepare teachers with diverse backgrounds to return to graduate academic biology courses are reviewed. Topics include general principles of biology, biochemistry, and biomathematics.

Department of Chemistry

IUPUI
Science Building, LD326
402 N. Blackford Street
Indianapolis, IN 46202-3274
(317) 274-6872, FAX (317) 274-4701
chem.iupui.edu

Professors Boschmann, Dubin, Dykstra (*Chancellor's Professor*), Larter (*Chair*), Lipkowitz, Malik, O'Donnell, Schultz, Sunderwirth (*IUPUI Columbus*)

Professors Emeriti Cutshall, Fife, Fricke, Wyma

Associate Professors Long, Muhoherac, Nurok, Sen

Assistant Professors Breen, Moser, Naumann

Assistant Scientists Forsythe, Young

Research Professor Boyd, Scott

Lecturer/Coordinator of Student Services Nguyen

Lecturer Holladay

Departmental Academic Advisors Contact the department for assignment to an advisor.

Chemistry is the science that studies substances, both natural and synthetic, and their compositions, properties, transformations, and interactions with external forces.

The Department of Chemistry offers the Associate of Science in Chemistry degree, the Bachelor of Arts in Chemistry degree, the Bachelor of Science in Chemistry degree with a chemistry option and a biological chemistry option, and the Master of Science degree. All degrees carry the general requirements of

the School of Science. These are described elsewhere in this bulletin. An undergraduate minor in chemistry is also offered. The Bachelor of Science degree carries certification by the American Chemical Society Committee on Professional Training. The Master of Science degree has both a thesis and nonthesis option. An Industrial Co-op Program is also offered for the Master of Science degree. Qualified students may be authorized to pursue the Ph.D. degree in chemistry in the areas of analytical, biological, inorganic, organic, and physical chemistry. Contact the Department of Chemistry for details or use the Internet address chem.iupui.edu.

To enter the undergraduate curriculum in chemistry, a student should have completed a minimum of two years of algebra, one semester of trigonometry, one year each of chemistry and physics, and two years of a modern foreign language. The choice of a particular degree program in chemistry and the selection of courses for that degree must be made in consultation with a departmental advisor.

Courses for Non-Majors

Students in programs that require only one semester of chemistry should take C100, C101, or C110 depending on their specific degree program. C100 and C110 are both non-mathematical introductions to chemistry, while C101 requires one semester of high school algebra. Students in programs that require two semesters of chemistry take either C101/C121 with C110/C115 or the C105/C125 with C106/C126 sequence (see specific program for degree major). The C105/C125 with C106/C126 sequence is designed for students pursuing advanced work in scientific fields (e.g., biology, chemistry, geology, medicine, and physics). Students with an insufficient background in high school chemistry for C105 should take C101 as a preparatory course. Credit for C101 cannot count toward the total credit hours needed for graduation if any of the following courses are taken: C105, C106, C111, or C112. Completion of C101 does not qualify a student for admission to C106.

Academic Counseling in Chemistry

Academic success requires frequent and regular interaction between students and faculty in the classroom as well as outside it. In keeping with this departmental philosophy, chemistry majors are required to meet with their advisor at least once a year, preferably in the first half of the fall semester. Students who do not meet with their advisor by October 21 will not be permitted to register for the following spring semester until their registration is approved by their advisor.

Course Prerequisites

The department enforces all prerequisites for chemistry courses as indicated in the course listing of this bulletin. For course equivalency of prerequisites, consult the instructor.

Associate of Science in Chemistry

For students seeking entry into the industrial job market as qualified chemical laboratory and process technicians. Students who complete this two year, 62

credit hour program will be able to enter the job market directly or, if they should choose at a later time, to complete additional coursework toward a Bachelor of Arts degree in chemistry with no loss of credits.

Degree Requirements

First-Year Experience Course See the School of Science requirements under “Undergraduate Programs” in this bulletin.

Area I See the School of Science requirements under “Undergraduate Programs” in this bulletin. The second semester of English composition may be satisfied only by ENG W132 (or ENG W150), ENG W231, ENG W233, ENG W290, or TCM 320.

Area II No foreign language is required.

Area IIIA See the School of Science requirements under “Undergraduate Programs” in this bulletin.

Area IIIB None

Area IIIC Physical and Biological Sciences In order to satisfy the science electives for this program students must take at least two courses totaling at least 8 credit hours of advanced chemistry, mathematics/physics or biology courses. Students must select courses from at least two of the three areas indicated and should consult with their advisor for course selection.

Area IIID Mathematical Sciences MATH 151 and STAT 301. Computer Science, CSCI N201, is also required. An additional advanced mathematics course, i.e. Math 221 Calculus for Technology I, can be used to partially satisfy the science elective requirement of this program. The Department of Chemistry requires a minimum grade of C– in MATH 151, STAT 301 and CSCI N201 (D grades are unacceptable).

Area IV Chemistry Concentration Requirements C105, C125¹, C106, C126², C325, C341, C343. Students can take either Analytical Chemistry Lecture and Laboratory (C310/C311) or Organic Chemistry Lecture and Laboratory II (C342/C344). A total of 24 credit hours of chemistry are required. An additional advanced chemistry course can be used to partially satisfy the science elective requirement of this program. The Department of Chemistry requires a minimum grade of C in all chemistry courses (C– grades are unacceptable).

Bachelor of Arts—Preprofessional Chemistry Major

For students who require a knowledge in chemistry as a basis for work in other fields such as business, dentistry, environmental science and policy, law, medicine or other allied health fields. Recommended for premedical and predentistry students.

Degree Requirements

Areas I, IIIA, and IIIB See the School of Science requirements under “Undergraduate Programs” in this bulletin. The second semester of English composition may be satisfied only by ENG W132 (or ENG W150), ENG W231, ENG W233, ENG W290, or TCM 320.

Area II See the School of Science requirements under “Undergraduate Programs” in this bulletin.

Area IIIC Physical and Biological Sciences PHYS P201 and PHYS P202 (recommended PHYS 152 and PHYS 251). Also, at least two additional courses outside chemistry having a laboratory component, which may be chosen from, for example, biology, geology, or physics.

Area IIID Mathematical Sciences MATH 221 and MATH 222 (recommended MATH 163 and MATH 164). One computer science course is also required.

Area IV Chemistry Concentration Requirements C105, C125¹, C106, C126², C310, C311, C325, C341, C342, C343, C344, C360 (recommended C361), and C495. Recommended C483. Total of 33 credit hours of chemistry courses is required. The Department of Chemistry requires a minimum grade of C in all chemistry courses (C– grades are unacceptable).

Bachelor of Science in Chemistry—Professional Chemistry Major, A.C.S. Certified

This degree is for students who plan to be professional chemists or secondary school teachers or who plan to pursue graduate studies in chemistry. It carries certification by the Committee on Professional Training of the American Chemical Society. Two options are available: a chemistry option and a biological chemistry option.

Degree Requirements (Chemistry Option)

Areas I, IIIA, and IIIB See the School of Science requirements under “Undergraduate Programs” in this bulletin. The second semester of English composition may be satisfied only by ENG W132, ENG W150, ENG W231, ENG W233, ENG W290, or TCM 320.

Area II No foreign language is required.

Area IIIC Physical and Biological Sciences PHYS 152, PHYS 251, and at least two additional courses outside chemistry, which may be chosen from, for example, biology, geology, or physics.

Area IIID Mathematical Sciences MATH 163, MATH 164, and MATH 261. One computer science course is also required.

Area IV Chemistry Concentration Requirements C105, C125¹, C106, C126², C310, C311, C341, C342, C343, C344, C361, C362, C363, C410, C411, C430, C435, C483 and C495. Total of 48 credit hours of chemistry courses is required. The Department of Chemistry requires a minimum grade of C in all chemistry courses (C– grades are unacceptable).

In addition to the above requirements, a minimum of 3 additional credit hours of advanced technical elective courses is required. Courses may be chosen from the following: CHEM C409 (3 cr. min.), any graduate-level chemistry course (permission

required), or any 300-level or higher biology, computer science, geology, mathematics, or physics course.

Degree Requirements (Biological Chemistry Option)

Areas I, IIIA, and IIIB See the School of Science requirements under “Undergraduate Programs” in this bulletin. The second semester of English composition may be satisfied only by ENG W132, ENG W150, ENG W231, ENG W233, ENG W290, or TCM 320.

Area II No foreign language is required.

Area IIIC Physical and Biological Sciences PHYS 152, PHYS 251, BIOL K101, and BIOL K103.

Area IIID Mathematical Sciences MATH 163, MATH 164, and MATH 261. One computer science course is also required.

Area IV Chemistry Concentration Requirements C105, C125¹, C106, C126², C310, C311, C341, C342, C343, C344, C361, C362, C363, C483, C484, C486, either C410-C411 or C430-C435, and C495. Total of 48 credit hours of chemistry courses is required. The Department of Chemistry requires a minimum grade of C in all chemistry courses (C– grades are unacceptable).

Chemistry Plans of Study

Associate of Science in Chemistry Major (62 cr. required)

Freshman Year

First Semester	
CHEM C105 Principles of Chemistry I	3
CHEM C125¹ Experimental Chemistry I	2
MATH 151 Algebra and Trigonometry	5
ENG W131 Elementary Composition I	3
SCI 120 Windows on Science	1
General Elective (List H, S or C)	3
	<hr/> 17

Second Semester

CHEM C106 Principles of Chemistry II	3
CHEM C126² Experimental Chemistry II	2
STAT 301 Elementary Statistics	3
ENG W132 Elementary Composition II	3
CSCI N201 Programming Concepts	3
	<hr/> 14

Sophomore Year

Third Semester	
CHEM C341 Organic Chemistry I	3
CHEM C343 Organic Chemistry Laboratory I	2
COMM R110 Fundamentals of Speech Communication	3

¹ If C105 has been taken for 5 credits, C125 is not required.

² If C106 has been taken for 5 credits, C126 is not required.

CHEM C310 ³ Analytical Chemistry	3
CHEM C311 ³ Analytical Chemistry Laboratory	1
General Elective (List H, S or C)	3
Physical or Biological Science ³	0 or 4
	<u>15</u>

Fourth Semester

CHEM C325 Introductory Instrumental Analysis	5
CHEM C342 ³ Organic Chemistry II	3
CHEM C344 ³ Organic Chemistry Laboratory II	2
General Elective (List H, S or C)	3
Physical or Biological Science ³	3 or 8
	<u>16</u>

Bachelor of Arts— Preprofessional Chemistry Major (124 cr. required)

Freshman Year**First Semester**

CHEM C105 Principles of Chemistry I	3
CHEM C125 ¹ Experimental Chemistry I	2
MATH 221 Calculus for Technology I	3
ENG W131 Elementary Composition I	3
HIST H114 History of Western Civilization II	3
SCI 120 Windows on Science	1
	<u>15</u>

Second Semester

CHEM C106 Principles of Chemistry II	3
CHEM C126 ² Experimental Chemistry II	2
MATH 222 Calculus for Technology II	3
PHYS P201 General Physics I	5
Second Composition Course	3
	<u>16</u>

Sophomore Year**Third Semester**

CHEM C341 Organic Chemistry I	3
CHEM C343 Organic Chemistry Laboratory I	2
PHYS P202 General Physics II	5
COMM R110 Fundamentals of Speech Communication	3
Foreign Language I	3
	<u>16</u>

Fourth Semester

CHEM C342 Organic Chemistry II	3
CHEM C344 Organic Chemistry Laboratory II	2
CSCI Course	3
Foreign Language II	3
Physical or Biological Science	4-5
	<u>15-16</u>

Junior Year**Fifth Semester**

CHEM C310 Analytical Chemistry	3
CHEM C311 Analytical Chemistry Laboratory	1
Foreign Language III	4
Humanities—List H	3
Physical or Biological Science	4-5
	<u>15-16</u>

Sixth Semester

CHEM C325 Introductory Instrumental Analysis	5
CHEM C360 Elementary Physical Chemistry	3
Social Sciences—List S	3
Comparative World Cultures—List C	3
Elective	3
	<u>17</u>

¹ If C105 has been taken for 5 credit hours, C125 is not required.² If C106 has been taken for 5 credit hours, C126 is not required.³ Students have a choice of either CHEM C310-C311 or CHEM C342-C344. Students will be able to take 4 additional hours of physical or biological science course work during the semester that they are not enrolled in C310-C311 or 5 additional hours of physical or biological science course work during the semester that they are not enrolled in C342-C344.**Senior Year****Seventh Semester**

Junior/Senior Integrator	3
Electives	11-12
	<u>14-15</u>

Eighth Semester

CHEM C495 Capstone in Chemistry	1
Electives	15
CAND 991 Candidate for Graduation	0
	<u>16</u>

Bachelor of Science in Chemistry, Chemistry Option— Professional Chemistry Major— A.C.S. Certified (124 cr. required)

Freshman Year**First Semester**

CHEM C105 Principles of Chemistry I	3
CHEM C125 ¹ Experimental Chemistry I	2
MATH 163 Integrated Calculus and Analytic Geometry I	5
ENG W131 Elementary Composition I	3
SCI 120 Windows on Science	1
	<u>14</u>

Second Semester

CHEM C106 Principles of Chemistry II	3
CHEM C126 ² Experimental Chemistry II	2
MATH 164 Integrated Calculus and Analytic Geometry II	5
PHYS 152 Mechanics	4
Second Composition Course	3
	<u>17</u>

Sophomore Year**Third Semester**

CHEM C341 Organic Chemistry I	3
CHEM C343 Organic Chemistry Laboratory I	2
MATH 261 Multivariate Calculus	4
PHYS 251 Heat, Electricity, and Optics	5
COMM R110 Fundamentals of Speech Communication	3
	<u>17</u>

Fourth Semester

CHEM C342 Organic Chemistry II	3
CHEM C344 Organic Chemistry Laboratory II	2
CSCI Course	3
HIST H114 History of Western Civilization II	3
Electives	4
	<u>15</u>

Junior Year**Fifth Semester**

CHEM C310 Analytical Chemistry	3
CHEM C311 Analytical Chemistry Laboratory	1
CHEM C362 Physical Chemistry of Molecules	4
Humanities—List H	3
Physical or Biological Science	4-5
	<u>15-16</u>

Sixth Semester

CHEM C361 Physical Chemistry of Bulk Matter	4
CHEM C363 Experimental Physical Chemistry	2
Social Sciences—List S	3
Comparative World Cultures—List C	3
Physical or Biological Science	4-5
	<u>16-17</u>

Senior Year**Seventh Semester**

CHEM C410 Principles of Chemical Instrumentation	3
CHEM C411 Principles of Chemical Instrumentation Laboratory	2
CHEM C483 Biological Chemistry	3
Junior/Senior Integrator	3
Electives	4
	<u>15</u>

Eighth Semester

CHEM C430 Inorganic Chemistry	3
CHEM C435 Inorganic Chemistry Laboratory	2
CHEM C495 Capstone in Chemistry	1
Advanced Technical Elective	3
Electives	6
CAND 991 Candidate for Graduation	0
	<u>15</u>

Bachelor of Science in Chemistry, Biological Chemistry Option—Professional Chemistry Major—A.C.S. Certified (124 cr. required)

Freshman Year**First Semester**

CHEM C105 Principles of Chemistry I	3
CHEM C125 ¹ Experimental Chemistry I	2
MATH 163 Integrated Calculus and Analytic Geometry I	5
ENG W131 Elementary Composition I	3
SCI 120 Windows on Science	1
	<u>14</u>

Second Semester

CHEM C106 Principles of Chemistry II	3
CHEM C126 ² Experimental Chemistry II	2
MATH 164 Integrated Calculus and Analytic Geometry II	5
PHYS 152 Mechanics	4
Second Composition Course	3
	<u>17</u>

Sophomore Year**Third Semester**

CHEM C341 Organic Chemistry I	3
CHEM C343 Organic Chemistry Laboratory I	2
MATH 261 Multivariate Calculus	4
PHYS 251 Heat, Electricity, and Optics	5
COMM R110 Fundamentals of Speech Communication	3
	<u>17</u>

Fourth Semester

CHEM C342 Organic Chemistry II	3
CHEM C344 Organic Chemistry Laboratory II	2
CSCI Elective	3
HIST H114 History of Western Civilization II	3
Electives	4
	<u>15</u>

Junior Year**Fifth Semester**

CHEM C310 Analytical Chemistry	3
CHEM C311 Analytical Chemistry Laboratory	1
CHEM C362 Physical Chemistry of Molecules	4
BIOL K101 Concepts of Biology I	5
Humanities—List H	3
	<u>16</u>

Sixth Semester

CHEM C361 Physical Chemistry of Bulk Matter	4
CHEM C363 Experimental Physical Chemistry	2
BIOL K103 Concepts of Biology II	5
Social Sciences—List S	3
Comparative World Cultures—List C	3
	<u>17</u>

Senior Year**Seventh Semester**

CHEM C410 Principles of Chemical Instrumentation ³	3
CHEM C411 Principles of Chemical Instrumentation Laboratory ³	2
CHEM C483 Biological Chemistry	3
Junior/Senior Integrator	3
Electives ³	3 or 8
	<u>14</u>

Eighth Semester

CHEM C430 Inorganic Chemistry ³	3
CHEM C435 Inorganic Chemistry Laboratory ³	2
CHEM C484 Biomolecules and Catabolism	3
CHEM C486 Biological Chemistry Laboratory	2
CHEM C495 Capstone in Chemistry	1
Electives ³	3 or 8
CAND 991 Candidate for Graduation	0
	<u>14</u>

The Department of Chemistry will not grant credit for a course when considerable duplication of course content may occur with another course taken. In general, credit will be allowed for the higher-level course, but not for the lower-level course. The following listings are considered to be duplications (lower-level courses listed first):

CHEM C360	and	CHEM C361
MATH 221-222	and	MATH 163-164
PHYS P201-P202	or	218-219 and PHYS 152-251
PHYS 100 or 200	and	PHYS P201, 218, or 152

For example, if a student has earned credit in MATH 163-164, the student will receive no credit for MATH 221-222, even if earned previously.

On occasion, a student who initially enrolled in the preprofessional B.A. in chemistry program decides to transfer to the B.S. in Chemistry program, having already taken one or more of the above-listed lower-level courses. The following policies will apply:

If a student has a minimum grade of B (B– or lower is unacceptable) in CHEM C360 and approval of the departmental chairperson, credit will be granted for CHEM C361 and the student may proceed to CHEM C362.

If a student has earned credit for the MATH 221-222 sequence, the student will be placed in MATH 164. If the student passes MATH 164, the MATH 163-164 requirement will be considered fulfilled. Credit will be granted for MATH 221 and MATH 164 only (8 credit hours). If the student does not pass MATH 164, the student must start with MATH 163.

If a student has earned credit for MATH 221 only, the student must take the MATH 163-164 sequence, and no credit will be allowed for MATH 221.

If a student has earned credit for the PHYS P201-P202 or PHYS 218-219 sequence, the student will be placed in PHYS 251. If the student passes PHYS 251, the PHYS 152-251 requirement will be considered fulfilled. Credit will be granted for PHYS P201 and PHYS 251 only (10 credit hours). If the student does not pass PHYS 251, the student must start with PHYS 152.

If a student has earned credit for PHYS P201 or PHYS 218 only, the student must take the PHYS 152-251 sequence, and no credit will be allowed for PHYS P201 or PHYS 218.

On occasion, a student who initially enrolled in the B.S. in Chemistry program decides to transfer to the preprofessional B.A. in chemistry program, having already taken one or more of the above-listed higher-level courses. A higher-level course will always substitute for a lower-level course to satisfy the requirement.

The Department of Chemistry will accept a maximum of 15 credit hours toward graduation in courses outside the Schools of Science, Liberal Arts, Business, Engineering, and Public and Environmental Affairs (e.g., technology, physical education, military science, therapy, etc.).

Minor in Chemistry

The undergraduate minor in chemistry requires 21 credit hours of chemistry courses. The following courses are required: CHEM C105, C125, C106, C126, C341, C342, C343, and either CHEM C310 or C360. MATH 222 and PHYS P202 are prerequisites for CHEM C360. For other requirements see the School of Science requirements under “Undergraduate Programs, Minors” elsewhere in this bulletin.

Graduate Programs (M.S. and Ph.D. Degrees)

Admission Requirements

The prospective student should have a baccalaureate degree from an accredited institution, show promise of ability to engage in advanced work, and have adequate preparation—at least 35 credit hours of chemistry broadly representative of the fields of the discipline—in a chemistry curriculum. The GRE subject exam in chemistry is strongly recommended.

Incoming students with an undergraduate grade point average (GPA) of 3.0 or higher (A=4.0) will automatically be recommended for admission as regular graduate students. Those with a GPA below 3.0 will be admitted as temporary graduate students with the provision that a 3.0 average must be achieved in the first three graduate courses (or 9 credit hours) if they are to be admitted as regular graduate students.

Application for Admission

Inquiries concerning the application process can be made directly to the Department of Chemistry by

writing to Graduate Admissions, Department of Chemistry, IUPUI, 402 N. Blackford Street, Indianapolis, IN 46202-3272; telephone (317) 274-6876; chem.iupui.edu. Applications for full-time study should be completed by March for the following fall semester to ensure complete consideration for fellowships and other financial support (see “Graduate Program Financial Aid” in this section). Applications for part-time graduate admission may be submitted at any time.

Temporary graduate students who wish to enroll in courses, though not necessarily in a degree program, should contact the IUPUI Graduate Office, Union Building 203, IUPUI, Indianapolis, IN 46202-5167; telephone (317) 274-1577. Students should be aware that no more than 12 credit hours earned as a nondegree student may be counted toward a degree program.

Transfer Credit

The Department of Chemistry will accept by transfer a maximum of 6 hours of graduate credit, in excess of undergraduate degree requirements, from approved institutions.

Graduate Program Financial Aid

All full-time thesis graduate students receive support stipends through teaching assistantships, research assistantships, departmental fellowships, university fellowships, or through the Industrial Co-op Program. Full-time students receive fee remissions; students with assistantships and fellowships are also eligible for health insurance. Consult the graduate advisor for current funding levels.

Master of Science Program

The M.S. program in chemistry, which awards a Purdue University degree, requires 30 credit hours of study beyond the baccalaureate level. It is designed for students seeking careers as professional chemists. Graduates of the program often choose industrial positions, but others enter Ph.D. programs in chemistry or related areas. Graduates have been placed in positions throughout the United States and abroad.

General Degree Options and Requirements

Specific area requirements (core courses) apply for course work. Courses from three of the following areas must be taken: analytical, biological, inorganic, organic, and physical. Typically, students take three courses in their primary area and two courses outside of it to meet these requirements.

The M.S. degree can be earned through any of three different options: the thesis option, the Industrial Co-op Program, and the nonthesis option.

Thesis Option This traditional full-time program requires 20 hours of course work and 10 hours of thesis research. The research activity culminates in the completion and defense of a thesis. This option is available to full- or part-time students.

³ Students have a choice of either CHEM C410-C411 or CHEM C430-C435. Students will be able to take 5 additional hours of electives during the semester they are not enrolled in C410-C411 or C430-C435.

Industrial Co-op Program This full-time program has the same requirements as the thesis option, but it includes industrial work experience in the Indianapolis area. The program is described in detail in the following section, “Master of Science Industrial Co-op Program.”

Nonthesis Option The nonthesis option requires 30 hours of course work alone. Since actual research experience is essential in an advanced chemistry program, this option is recommended for part-time students only. Students in this option are usually employed full time and are already engaged in research activity as part of their employment. However, nonthesis students may still enroll in a limited amount of research study that applies to the degree requirements (usually through CHEM 599).

Master of Science Industrial Co-op Program

Although most chemists seek careers in industry upon completion of their educational goals, few have had industrial experience or the opportunity to develop an appreciation for the types of problems presented in the industrial setting. The Industrial Co-op Program in Indianapolis is designed to provide industrial experience and to offer an alternative approach to career preparation. Most graduates leave with a strong, research-based M.S. degree plus meaningful work-study experience commensurate with graduate-level training. Students may also enter the Ph.D. program and participate in the co-op program for the first two years of their residency.

The M.S. Industrial Co-op Program requires 24 months of full-time study. The first semester consists of intensive course work, interviews with personnel from several local industrial laboratories, and familiarization with faculty research interests. In the second and subsequent semesters, the student continues course work and engages in parallel work experience and academic experience, consisting of 20 hours per week at an industrial lab and 20 hours per week in an academic lab. This work experience is commensurate with the student's background and interests and is an important part of the overall training program. The faculty thesis advisor and the industrial supervisor serve together to monitor each student's progress in the program.

Most students who enter the co-op program have sound academic backgrounds and some research experience, and they desire industrial experience and an opportunity to pursue graduate studies in chemistry.

Ph.D. Program

The Ph.D. program is a full-time thesis-based research program. This program provides a substantially larger research component than that of the M.S. degree and requires original and significant research contributions by the student. As a result, the Ph.D. student is qualified for employment where the ability to design, develop, and complete a research program is expected. The program is part of the Purdue University system-wide doctoral program in chemistry, and, as such, identical requirements apply to all campuses participating in the program.

To establish candidacy, students must pass five written “cumulative” examination questions within their first four semesters and an oral examination prior to the end of their fifth semester of graduate study. The oral examination will include a discussion of the student's research and defense of an original research proposal that is different from the student's thesis research.

Course requirements include a core of three courses in the student's major division plus three additional courses outside the major division. A number of additional courses may be recommended that cover material appropriate to the written part of the preliminary examination.

Joint M.D.–Ph.D. Program

The Department of Chemistry participates in the joint M.D.–Ph.D. program with the Indiana University School of Medicine. In this program, students concurrently earn an Indiana University M.D. degree and Purdue University Ph.D. degree in chemistry. Students take courses in both chemistry and medicine, with several courses simultaneously satisfying both degree requirements.

Eligible students must be admitted separately to the School of Medicine and the Department of Chemistry. Once admission to each is approved, students, together with advisors from medicine and chemistry, plan a tentative course outline for a concurrent program. Graduate and teaching assistantships or fellowships are arranged primarily through the Department of Chemistry.

Medical Biophysics Ph.D. Program

In cooperation with departments in the Indiana University School of Medicine and the Purdue University School of Science, this interdisciplinary program leads to an Indiana University Ph.D. degree in biophysics. The program is designed to give talented graduate students the skills required of the next generation of biologically-oriented scientists. The program combines a core of courses in molecular and cellular biophysics with flexible electives and a seminar program. The training is oriented primarily toward faculty-directed research with focus points at the boundaries of the traditional disciplines of physics, chemistry, and biology. Prospective students should contact the director of graduate programs in the chemistry department for further information.

Biomedical Engineering Ph.D. and Master's Program

Biomedical Engineering is a rapidly emerging interdisciplinary field combining engineering, chemistry, biology, and medicine. The curriculum involves mathematics, engineering, and classical and medical sciences. The Doctoral program is a joint effort between the Biomedical Engineering Programs at IUPUI and Purdue University, West Lafayette. In this case, students apply to the West-Lafayette campus and can take courses and do research at IUPUI. Students

for the Master's Program apply to the Biomedical Engineering Program at IUPUI.

Courses in Chemistry (CHEM)

Notes: P—prerequisite; C—corequisite; Fall—offered fall semester; Spring—offered spring semester; Summer—offered during one or both summer sessions; Day—offered as a daytime section; Night—offered as an evening section; Equiv.—course is equivalent to the indicated course taught at Indiana University Bloomington, the indicated course taught at the School of Science, IUPUI, or the indicated course taught at Purdue University, West Lafayette.

Undergraduate

C100 The World of Chemistry (3 cr.) P: None. Optional laboratory: C120. A topically oriented, non-mathematical introduction to the nature of matter. Topics covered include fossil fuel and nuclear sources of power; environmental issues involving chemistry such as recycling, acid rain, air and water pollution, global warming, ozone depletion; genetic modification of foods, DNA profiling, use of food additives and herbal supplements, and other public policy issues involving science.

C101 Elementary Chemistry I (3 cr., lecture, recitation) P: At least one semester of high school algebra. Usually taken concurrently with C121. Fall, day, night; Spring, day, night; Summer I, day. Essential principles of chemistry; atomic and molecular structure; bonding; properties and reactions of elements and compounds; stoichiometry; solutions; acids and bases. For students who are not planning careers in the sciences and for those with no previous course work in chemistry. Note: Most degree programs that include C101 require the concurrent laboratory, C121.

C102 Elementary Chemistry II (5 cr., lecture, recitation, laboratory) P: C101 (5 cr.). Equiv. PU CHEM 257-257L. Fall, even years, day; odd years, night; Spring, day, night; Summer II, day. Continuation of C101. Introduction to organic chemistry and biochemistry; organic compounds and their reactions.

C105 Principles of Chemistry I (3 cr., lecture, recitation) P: Two years of high school algebra, one year of high school chemistry. Equiv. PU CHEM 115, PU CHEM 125. Fall, day, night; Spring, day; Summer I, day. Usually taken concurrently with C125. A placement examination may be required for admission to this course. See text on page 42 under Chemistry Placement Examination. Principles of inorganic and physical chemistry emphasizing physical and chemical properties, atomic and molecular structure, chemical bonding and states of matter.

C106 Principles of Chemistry II (3 cr., lecture, recitation) P: C105 or equivalent. Equiv. PU CHEM 116, PU CHEM 126. Fall, day; Spring, day, night; Summer II, day. Continuation of C105. Usually taken concurrently with C126. Topics include condensed phases, solution chemistry, thermodynamics, equilibrium and kinetics.

C110 The Chemistry of Life (3 cr.) High school chemistry recommended. Equiv. IU C102, PU CHEM 257. Optional laboratory: C115. A non-mathematical introduction to organic molecules and their transformation to useful materials such as drugs and polymers. An emphasis is placed on the chemical features of biomolecules including hormones and neurotransmitters; proteins; lipids (fats); carbohydrates (sugars); and nucleic acids (DNA/RNA). The chemistry of enzymes, carcinogens, vitamins, antihistamines, anesthetics, genetic engineering, mental health, and other health-related topics.

C115 Laboratory for The Chemistry of Life (2 cr.) P or C: C110. Equiv. PU CHEM 257L. Laboratory work illustrating topics covered in C110.

C120 Laboratory for The World of Chemistry (2 cr.) P or C: C100. A hands-on approach to the topics discussed in C100.

C121 Elementary Chemistry Laboratory I (2 cr.) P or C: C101 (3 cr.) Fall, day, night; Spring, day, night; Summer I, day. Introduction to the techniques and reasoning of experimental chemistry. Emphasis is given to study of physical and chemical properties of inorganic compounds.

C125 Experimental Chemistry I (2 cr., lecture, laboratory) P or C: C105 or equivalent. Fall, day, night; Spring, day; Summer I, day. Laboratory work illustrating topics covered in C105.

C126 Experimental Chemistry II (2 cr., lecture, laboratory) P: C105 and C125; P or C: C106 or equivalent. Fall, day; Spring, day, night; Summer II, day. Continuation of C125. Laboratory work illustrating topics covered in C105 and C106.

C209 Special Problems (1-2 cr.) P: Two semesters of college chemistry and consent of instructor. Equiv. PU CHEM 290. Every semester, time arranged. Individually supervised special problems of chemical interest, e.g., environmental problems, development of experiments, development of audiovisual materials, etc. May be repeated for credit, but maximum of 2 credit hours may be applied toward a chemistry degree.

C301 Chemistry Seminar I (1 cr.) P or C: C409 and consent of instructor. Fall, day. Topics in various areas of chemistry. Students are required to attend departmental seminars and to prepare and present at least one seminar on their research. C301 and C302 may be elected three semesters for credit.

C302 Chemistry Seminar II (1 cr.) P or C: C409 and consent of instructor. Spring, day. Content same as C301.

C309 Cooperative Education in Chemistry (1 cr.) P: General and organic chemistry and consent of departmental chairperson. Every semester, time arranged. Industrial or similar experiences in chemically oriented employment. Grade is determined on basis of employment visitations, a written student report, and a supervisor evaluation report. May be repeated for a maximum of 5 credit hours of which 3 may be used to satisfy an advanced chemistry elective.

C310 Analytical Chemistry (3 cr.) P: C106. With C311, Equiv. PU CHEM 321. Fall. Fundamental analytical processes including solution equilibria, theory and applications of electrochemistry and spectrophotometry, and chemical methods of separation.

C311 Analytical Chemistry Laboratory (1 cr.) P or C: C310. Fall. Laboratory instruction in the fundamental analytical techniques discussed in C310.

C325 Introductory Instrumental Analysis (5 cr.) P: C310, C311. Spring. Instrumental methods of chemical analysis and separation for the chemical technician or preprofessional chemistry major.

C341 Organic Chemistry I (3 cr.) P: C106. Equiv. PU CHEM 261. Fall, day, night; Spring, even years, day; odd years, night; Summer I, day. Comprehensive study of organic compounds. Valence bond theory, stereochemistry, and physical properties of organic compounds are discussed in detail. Introduction to reaction mechanisms and to spectroscopic identification. Synthesis and reactions of selected compounds are also discussed.

C342 Organic Chemistry II (3 cr.) P: C341. Equiv. PU CHEM 262. Fall, even years day, odd years, night; Spring, day, night; Summer II, day. Continuation of CHEM 341. The chemistry of aromatic compounds and other major functional groups are discussed in detail. Multistep synthetic procedures and reaction mechanisms are emphasized. Introduction to biological chemistry.

C343 Organic Chemistry Laboratory I (2 cr.) P or C: 341. Equiv. PU CHEM 265. Fall, day, night; Spring, day, night; Summer I, day, night. Fundamental laboratory techniques of organic chemistry, introduction to spectroscopic methods of compound identification, and general synthetic methods.

C344 Organic Chemistry Laboratory II (2 cr.) P or C: 342; P: C343. Equiv. PU CHEM 266. Fall, night; Spring, day, night; Summer II, day, night. Preparation, isolation, and identification of organic compounds, spectroscopic methods of compound identification, qualitative organic analysis, multistep synthesis.

C360 Elementary Physical Chemistry (3 cr.) P: C106, MATH 222, PHYS P202. Spring, even years, day; Spring, odd years, night. Properties of gases and liquids, intermolecular forces, diffusion, chemical thermodynamics, ligand binding, kinetics, and introduction to quantum chemistry and spectroscopy. Includes topics in biophysical chemistry. For students who desire a survey course in physical chemistry.

C361 Physical Chemistry of Bulk Matter (4 cr.) P: C106, MATH 164, and PHYS P202 or PHYS 251 and C: MATH261. Equiv. PU CHEM 373 and 374. Spring, even years, day; Spring, odd years, night. Kinetic-molecular theory, gases, liquids, thermodynamics, statistical mechanics, solutions, transport properties, and phase and chemical equilibria.

C362 Physical Chemistry of Molecules (4 cr.) P: C106, MATH 164, and PHYS P202 or PHYS 251 and C: MATH261. Equiv. PU CHEM 375. Fall, odd years, day; Fall, even years, night. Quantum chemistry,

symmetry, atomic and molecular structure and spectra, solids, chemical kinetics, photochemistry, and introduction to statistical thermodynamics.

C363 Experimental Physical Chemistry (2 cr.) P: C361 and C: C362 or P: 362 and C: 361. Equiv. PU CHEM 376. Fall, spring. Experimental work to illustrate principles of physical chemistry and to introduce research techniques.

C371 Chemical Informatics I (1cr.) P: C106, Fall. Basic concepts of information representation, storage, and retrieval as they pertain to chemistry. Structures, nomenclature, molecular formulas, coding techniques for visualization of chemical structures and properties.

C372 Chemical Informatics II (1cr.) P: C341 and C371, Spring. Basic concepts of information representation, storage, and retrieval as they pertain to chemistry with emphasis on "organic and biochemical knowledge." Spectral data representation and retrieval, crystallographic data systems, pattern recognition, instrumentation and laboratory networking, combinatorial chemistry, molecular modeling, and bioinformatics.

C409 Chemical Research (1-4 cr.) P: Junior or senior standing and consent of instructor. Equiv. PU CHEM 499. Every semester, time arranged. Chemical or literature research with a report. Can be elected only after consultation with research advisor and approval of program. May be taken for a total of 10 credit hours, which count toward graduation. Three credit hours may be used to satisfy the advanced technical elective in the Bachelor of Science in Chemistry degree program.

C410 Principles of Chemical Instrumentation (3 cr.) P: C310, C311, C361. P or C: C362. Equiv. PU CHEM 424. Fall. Modern methods of instrumental analysis, including spectroscopy, chromatography, and electrochemistry.

C411 Principles of Chemical Instrumentation Laboratory (2 cr.) P: C311. P or C: C410. Fall. Laboratory instruction in the instrumental analysis techniques discussed in C410.

C430 Inorganic Chemistry (3 cr.) P: C362. Equiv. PU CHEM 342. Spring. Atomic structure; periodic trends and properties of the elements. Introduction to symmetry and group theory. Valence bond, molecular orbital and ligand field theories of bonding and their application to structure and properties of inorganic and organometallic compounds. Spectroscopic properties and acid-base, oxidation-reduction, and coordination reactions of inorganic compounds.

C435 Inorganic Chemistry Laboratory (2 cr.) P or C: C430. Spring. Synthesis, characterization, and study of chemical and physical properties of inorganic and organometallic compounds.

C471 Chemical Information Sources (1cr.) P: C341, Fall. Techniques for the storage and retrieval in both printed and computer-readable formats; sources of chemical information, including Chemical Abstracts; development of search strategies; online searching of chemical databases.

C472 Computer Sources for Chemical Information (1 cr.) P: C471, Spring. Techniques for the utilization of the major computer-based information tools found in academic and industrial environments.

C483 Biological Chemistry (3 cr.) P: C342, and one semester of physical chemistry or consent of instructor. Fall. The chemical and biophysical properties of biologically important molecules and systems. Special emphasis on the relationship between structure and function in proteins, nucleic acids, and biomembranes, as well as bioenergetics, kinetics, allosteric interactions, and enzyme catalysis.

C484 Biomolecules and Catabolism (3 cr.) P: C483. Spring. Mechanisms of biological catalysis, metabolism, biosynthesis, regulation of genetic information, and molecular biology.

C486 Biological Chemistry Laboratory (2 cr.) P: C483 or equivalent. Spring. An introduction to the important laboratory techniques currently employed by practicing biological chemists, including biomolecule isolation, purification, enzyme kinetics, and biomolecule characterization by electrophoresis, centrifugation, and spectroscopic methods.

C495 Capstone in Chemistry (1 cr.) P: Senior standing, B.A. or B.S. program. Fall, day; Spring, day. Independent study, under the supervision of a chemistry faculty member or appropriate academic advisor can be earned by completion of (a) a chemical research project; (b) a library research project in an area of current scientific investigation; (c) a research investigation in industry; or (d) a service activity in university, government, public schools, or other science-related groups or organizations. Students will report the results of their activities in both a formal written report and oral presentation, prepare portfolios of undergraduate work in chemistry, discuss recent scientific literature, and explore chemistry in society. Enrollment in the Capstone in Chemistry requires joint approval of the capstone instructor and the independent project advisor.

C496 Methods in Teaching Chemistry (1 cr.) P: CHEM C105. Fall; Spring. Designed for workshop leaders, this course is intended to offer continued support and training in group dynamics and learning theory. The larger goals for this course are to continue the development of leadership skills, to foster ongoing communication among workshop leaders, and to provide an environment for reviewing content knowledge.

Graduate

Please consult the IUPUI Class Schedule for a listing of graduate lecture courses offered each Fall or Spring semester.

533 Introductory Biochemistry (3 cr.) P: C342 or equivalent. A rigorous one-semester introduction to biochemistry.

542 Inorganic Chemistry (3 cr.) P: C362 or equivalent or consent of instructor. Atomic structure; periodic trends and properties of the elements. Introduction to symmetry and group theory. Valence bond, molecular orbital, and ligand field theories of

bonding and their application to structure and properties of inorganic and organometallic compounds. Spectroscopic properties and acid-base, oxidation-reduction and coordination reactions of inorganic compounds. Advanced topics in main group or transition element chemistry.

575 Intermediate Physical Chemistry (3 cr.) P: C362 or equivalent. Quantum theory of atoms and molecules; theories of chemical bonding; molecular spectroscopy; methods for determining molecular structure; electrical and magnetic properties.

599 Special Assignments (1-4 cr.) P: Consent of instructor. Every semester including summer I and II, time arranged. Directed reading or special work not included in other courses.

621 Advanced Analytical Chemistry (3 cr.) P: C310, C410. Equiv. IU CHEM C510. A critical survey of recent developments in chemical and instrumental methods of analysis.

629 Chromatographic Methods of Analysis (3 cr.) P: C410 or equivalent or consent of instructor. Principles and practice of modern gas and liquid chromatography and capillary electrophoresis are developed from an integrated point of view. Emphasis is placed both on theory and on features useful for practical analytical separations.

634 Biochemistry: Structural Aspects (3 cr.) P: C310, C342, C361, and C362 or equivalent. Chemistry of materials of biochemical interest: carbohydrates, lipids, proteins, amino acids, nucleic acids, porphyrins, biochemistry of blood.

636 Biochemical Mechanisms (3 cr.) P: One year of physical chemistry and 651. The chemical basis of enzymatic catalysis with particular emphasis on catalytic interactions important in aqueous media.

641 Advanced Inorganic Chemistry (3 cr.) P: C430 or 542 or equivalent or consent of instructor. Applications of symmetry and group theory to structure, bonding and spectral properties of inorganic compounds. Advanced topics in main group and transition element chemistry including determination of structure from physical and spectroscopic properties, bonding in coordination, and organometallic compounds and inorganic reaction mechanisms.

651 Advanced Organic Chemistry (3 cr.) P: 342 or equivalent. Modern structural organic chemistry. Introduction to bonding theory, stereochemistry, and computational chemistry.

652 Synthetic Organic Chemistry (3 cr.) P: 651 or 657. An advanced treatment of methods for preparing major types of organic functionalities and bonds, stressing stereochemical and regiochemical control, and employing mechanistic organic chemistry for understanding choice of reagents and reactions conditions.

657 Reaction Mechanisms (3 cr.) P: 342 or equivalent or consent of instructor. Modern structural organic chemistry, introduction to physical organic chemistry, mechanisms of representative reactions, and methods used for understanding reactivity in organic transformations.

672 Quantum Chemistry (3 cr.) P: One year of physical chemistry. Equiv. IU CHEM C661. Basic principles of classical and quantum mechanics; approximation methods; atomic structure; spectroscopy; application of group theory; theory of molecular bonding.

675 Chemical Kinetics (2 or 3 cr.) P: One year of physical chemistry. Equiv. IU CHEM C673. Experimental and theoretical considerations of chemical reaction rates and mechanisms.

682 Statistical Thermodynamics (3 cr.) P: C362 or equivalent. Application of statistical mechanics to the description of imperfect gases, liquids, and solutions, to order-disorder phenomena in solids and surfaces; Monte Carlo techniques and molecular dynamics.

696 Special Topics in Chemistry (1-3 cr.) P: Bachelor of Science in Chemistry from an accredited institution or consent of instructor. Lectures on selected topics of current interest, as follows:

Analysis and Characterization of Synthetic Polymers A description of the principles and techniques of solution characterization and molecular weight methods, polymer spectroscopy, thermal analysis, and evaluation of mechanical properties.

Analytical Spectroscopy Survey of modern techniques, applications of spectroscopy and imaging in analytical chemistry.

Applied Computational Chemistry and Molecular Modeling Applied computational techniques that are widely used in the chemical and pharmaceutical industry, including computational chemistry, molecular modeling and computer-aided synthesis.

Bioanalytical Chemistry Modern techniques for the study of biological macromolecules, such as protein and peptides, carbohydrates, DNA, RNA, and lipids, including (1) spectroscopy (UV-Vis, Raman, NMR, mass spectrometry, and light scattering); (2) bioseparations (chromatography, electrophoresis, and microdialysis); (3) electrochemistry (sensors, electron transfer, and LCEC); (4) miscellaneous topics (amino acid analysis, sequencing, microcalorimetry, and immunochemistry).

Biochemistry-Dynamic Aspects Mechanisms of biological catalysis, metabolism, biosynthesis, regulation of genetic information, and molecular biology.

Bioelectrochemistry Principles of electrochemical measurements including potentiometry, amperometry and linear sweep and cyclic voltammetry and application to the study and utilization of biological molecules. Topics covered include redox transformations in biological systems, electron transfer between electrodes and biological molecules, and electrochemical sensors for detection and quantitation of biological analytes.

Bioinorganic Chemistry A study of the occurrence, properties, and mechanistic roles of transition and main group elements in biological processes including photosynthesis, oxygen evolution, respiration, nitrogen fixation, metabolic detoxification, and electron transfer.

Bioorganic Chemistry Structure and reactivity of biological macromolecules, such as proteins, enzymes, and nucleic acids, and their relevance to bioorganic chemistry. Current experimental studies of enzymes, nucleic acids, and model systems.

Biomaterials Introduction to the field of biomaterials science including chemistry, physics, and engineering of biomaterials; biological and biochemical aspects of biomaterials; and biomaterials in medicine.

Biophysical Chemistry The study of structure and properties of biologically important macromolecules in solution using physical techniques, with special emphasis on optical, fluorescence, and magnetic resonance spectroscopy to describe protein conformation, denaturation, catalytic center structure, thermodynamics of ligand binding, time dependent processes, and membrane properties.

Chemical Information Technology Overview of chemical informatics techniques, including chemical information and data systems, chemical structure and data representation and search systems, and bioinformatics techniques.

Electroanalytical Chemistry Principles of modern methods of electroanalytical chemistry and quantitative applications to electrode reaction mechanisms and analytical determinations.

Medicinal Chemistry The application of basic concepts of organic chemistry, biochemistry, and pharmacology to the design of organic medicinal agents as well as recent advances in synthesis and evaluation of pharmaceuticals.

Organometallics in Organic Synthesis

Recent developments in the use of transition metals in synthetic organic methodology. Emphasis is placed on applications of methods in the synthesis of complex organic molecules.

Protein Structure and Function Physical forces stabilizing protein structure; protein folding. Essential features of macromolecular interactions. Introduction to enzyme kinetics and chemical mechanism in enzyme reactions.

Group Theory in Chemistry This course is on molecular symmetry and how we obtain information about the quantum states of molecules through application of group theoretical techniques related to the symmetries of molecules.

698 Research M.S. Thesis (cr. arr.)

699 Research Ph.D. Thesis (cr. arr.)

Department of Computer and Information Science

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Academic Advising Appointments: Please call the department.

Professors Bukhres, Chin, W. Liu, Palalak
(*Chairperson*)

Professor and Dean Emeritus Yovits

Associate Professors Mukhopadhyay, Olson
(*Associate Chairperson*), Patterson, Tuceryan, Zheng

Assistant Professors Fang, Huang, Z. Liu, Rajee,

Lecturers Harris, Molnar, Roberts

Adjunct Professors Mostafa, Pidaparti

The department offers Purdue University Bachelor of Science and Master of Science degrees. It also offers a Certificate of Applied Computing. Students interested in research may arrange to pursue a Doctor of Philosophy degree through the Purdue University Graduate School. The programs of study emphasize the basic principles of computing and information processing, which include the creation, representation, storage, transformation, and transmission of information. Since computers are used in all segments of society, the theory and practice of computer and information science are pervasive and the field is, therefore, interdisciplinary. It is also young and dynamic, as evidenced by the growth of the computer industry, so the curriculum itself evolves rapidly.

Bachelor of Science

Students completing the undergraduate degree in computer and information science will have acquired a fundamental understanding of computing, information processing, and information communication. The department's graduates serve in a variety of programming, software engineering, database administration, systems analysis, management, and research positions.

Degree Requirements

See the School of Science requirements under "Undergraduate Programs" in this bulletin for the general and area degree requirements. Computer science majors are admitted only provisionally to the program until they have completed MATH 163 and CSCI 230 and 240 with a grade point average of 2.7 or higher for the three courses. Please note that computer and information science courses below CSCI 230 or CSCI N311, mathematics courses below MATH 163, and statistics courses below STAT 311 are not credited toward the degree. Furthermore, the School of Science will not accept certain university courses for the computer science degree program. The Bachelor of Science degree program in computer science requires a minimum of 124 credit hours.

Area I English Composition and Communication Skills See the School of Science requirements under "Undergraduate Programs" in this bulletin for details.

English W131 Elementary Composition I

Communications R110 Fundamentals of Speech

The second semester of English composition *must* be satisfied with:

TCM 320 Written Communication in Science and Industry.

Area II Foreign Language There is no foreign language required for the B. S. degree.

Area IIIA Humanities, Social Sciences, and Comparative World Cultures The information about the IIIA requirements in the School of Science part of this bulletin lists courses that may be used to satisfy the requirements below. Consult a departmental advisor before registering for these courses.

HIST H114 History of Western Civilization II

and at least one course from *each* of the following three lists is required:

Humanities

Social Sciences

Comparative World Cultures

Area IIIB Junior/Senior Integrator (3 cr.) See School of Science requirements in this bulletin for more details.

Area IIIC Physical and Biological Sciences The Department of Computer and Information Science requires *five* courses chosen from the areas of biology, chemistry, geology, and physics, or from certain courses in engineering. This experience *must* include a designated laboratory component. Each course that counts as one of the five required courses *must* have a lecture component and be at least 3 credit hours. Students pursuing the minor in business will substitute one business course for one non-laboratory science course. Courses that *may not* be used to fulfill Area IIIC requirements include: BIOL N100, N107, N120, N200, K309; CHEM C100, C101, C102, C110; PHYS 010, 100, 140, 200, 218, 219, P201, P202; AST A100, A105, A130; GEOL G107, G115, G130, G132; and all agriculture and geography courses. Consult a departmental academic advisor concerning the acceptability of other courses. The following engineering courses *may* be applied toward Area IIIC requirements: EE 201, 202, and 266. Laboratory courses without a lecture component may be taken for credit but do not count toward the five-course requirement.

Area IIID Mathematical Sciences Completing the conditions described in "Major Requirements" below will satisfy these requirements. Mathematically-oriented or computer-oriented courses in other schools *cannot* be used to fulfill these requirements. They may not count towards the degree in computer science either. Consult a departmental advisor before registering for such courses.

Area IV Major Requirements Minimum requirements are 71-72 credit hours of designated computer science and mathematics courses. Students who do not maintain a minimum GPA of 2.5 in MATH 163, 164, and 261 and in CSCI 230, 240, 300, and 340 will not be permitted to continue as departmental majors.

Computer and Information Science Program Tracks

Two tracks are available in the computer and information science degree program: the Computing Science Track and the Scientific Computing Track.

The **Computing Science Track** provides a strong theoretical foundation in modern computing combined with hands-on learning experiences in database systems, networking, operating systems, programming languages, and software project

management. Students will learn problem-solving skills required in the fields of business, industry, health, and education.

The **Scientific Computing Track** is a sequence of six courses that uses scientific methods and the computer for problem solving in science and engineering disciplines. Scientific philosophy and methodology, data analysis, statistical inference, experimental design, computation, visualization, and modeling techniques will be thoroughly integrated. This interdisciplinary track requires a fundamental knowledge of chemistry, physics, or engineering. Students are strongly encouraged to satisfy their Area IIC requirements with these related courses.

Both tracks require the following courses:

1. SCI 120
2. The calculus sequence MATH 163, 164, 261; and MATH 351 or 511.
3. CSCI 230, 240, 265, 300, 340, 355, 362, 402, 403, 450, and at least 3 credits for a single project in 495.

Additional track requirements are as follows:

Computing Science Track	Scientific Computing Track
STAT 311 or 511	MATH 262 CSCI 475
CSCI 470	MATH 426 CSCI 476
CSCI/MATH 414	CSCI 437 CSCI 477
CSCI electives (9 credit hours)	

Note: The CSCI 475 and CSCI 476 course sequence may be substituted for STAT 311 or STAT 511 and CSCI/MATH 414.

The department strongly urges that elective and required area courses be chosen to form a cohesive support area for the applications of computer and information sciences.

Minor in Computer and Information Science

The undergraduate minor in computer and information science requires at least 20 credit hours in computer science courses, including CSCI 230, 240, 265, 300, 340, and 362. Course prerequisites must be fulfilled *prior* to enrollment in CSCI courses.

A minimum GPA of 2.5 must be maintained in these courses. At least 9 credit hours of the minor must be taken at IUPUI.

Students who wish to pursue a minor in computer and information science must consult with a department advisor, who can be reached at (317) 274-9727. They must also file a formal application.

Minor in Business

The School of Business grants a minor in business to computer and information science students. This requires 16 credit hours of business courses and 24 credit hours of related courses. The business courses are distributed as free elective credit toward the total of 124 credit hours needed for a bachelor's degree. The requirements for a business minor include the following courses:

Business courses

1. BUS A100, A201, and A202 are to be taken as prerequisite courses; a GPA of 2.3 (C+) in these courses is required.

2. BUS F301, M301, and P301 are to be taken concurrently after completing the prerequisite courses.

Related courses

1. MATH 163.
2. STAT 311 or STAT 511.
3. ECON E201 and ECON E202.
4. CSCI 230, CSCI 443, and CSCI 541.

Certificate in Applied Computer Science

The certificate program introduces computer science principles, develops practical skills in market-driven software applications and prepares students to be successful with emerging technologies. The program is designed to supplement and enhance a primary degree program. It serves current IUPUI students and returning adults who are interested in gaining knowledge and skills in computing applications.

Those who earn the certificate will have demonstrated that they have the core competencies necessary for entry-level positions in information technology. They will have the ability to solve complex problems, design and implement algorithms, apply computer science theory to practical problems, adapt to technological change and to program in at least two languages.

Admission Requirements

A cumulative GPA of at least 2.0.

Junior standing, and

Successful completion (no grade below C-) of: MATH M118 Finite Mathematics, or equivalent CSCI N201 Programming Concepts CSCI N241 Introduction to Web Design

Students must declare their intent to earn this certificate prior to completing the core requirements (9 credit hours) described below. No more than 9 credit hours earned prior to admission to the program will be accepted toward certification.

Program Requirements

Students are required to successfully complete 18 credit hours (six courses) to earn the certificate. Three courses are core requirements and three courses are advanced electives. Core requirements must be completed prior to enrolling in the advanced electives. No individual grade below a C- is acceptable toward certification. At least 9 credit hours in the certificate program must be taken in the Department of Computer and Information Science. A GPA of at least 2.0 is required for the complete certificate program.

Required Core CSCI Courses (9 credit hours):

- N301 Fundamental Computer Science Concepts
- N341 Client Side Web Programming
- N485 Capstone Project in Applied Computing

Advanced Electives (9 credit hours):

Students must successfully complete three of the following CSCI courses. Each is worth 3 credits. Other courses may apply with approval from the advisor.

- N305 C Language Programming
- N311 Advanced Database Programming, Oracle
- N321 System and Network Administration
- N335 Advanced Programming, Visual Basic
- N345 Advanced Programming, Java
- N351 Introduction to Multimedia Programming
- N355 Introduction to Virtual Reality
- N399 Topics in Computing

To enroll in this program, students must be formally admitted by the Office of Admissions on the IUPUI campus. Applications for admission to the Certificate of Applied Computer Science program are available in the offices of the Dean of the School of Science or the Department of Computer and Information Science. Credit may be given for applicable courses taken at other colleges or universities. In general, courses of the Certificate Program do not apply toward the degree programs in computer science. However, those numbered N311 and above may count as general electives in the B. S. program with the approval of the advisor *prior* to enrolling.

Sample Program for B.S. Degree (124 cr. required)

Freshman Year

First Semester	
CSCI 230 Computing I	4
MATH 163 Integrated Calculus and Analytic Geometry I	5
ENG W131 Elementary Composition I	3
Free Elective	3
SCI120 Windows on Science	1
	<hr/> 16

Second Semester

CSCI 240 Computing II	4
CSCI 265 Advanced Programming	3
MATH 164 Integrated Calculus and Analytic Geometry II	5
HIST H114 History of Western Civilization II	3
	<hr/> 15

Sophomore Year

Third Semester

CSCI 300 Systems Programming	3
CSCI 340 Discrete Computational Structures	3
MATH 261 Multivariate Calculus	4
COMM R110 Fundamentals of Speech Communication	3
Physical or Biological Laboratory Science	4-5
	<hr/> 17-18

Fourth Semester

CSCI 355 Introduction to Programming Languages	3
CSCI 362 Data Structures	3
MATH 511 Linear Algebra with Applications	3
TCM 320 Written Communication in Science and Industry	3
Humanities—List H	3
	<hr/> 15

Junior Year

Fifth Semester

CSCI 402 Architecture of Computers	3
CSCI 470 Automata and Formal Languages	3
CSCI/MATH 414 Numerical Methods	3
Physical or Biological Science	3-5
Social Sciences—List S	3
	<hr/> 15-17

Sixth Semester

CSCI 403 Introduction to Operating Systems	3
STAT 311 Introductory Probability or STAT 511 Statistical Methods	3
CSCI Advanced Elective	3
Physical or Biological Science	3-5
Comparative World Cultures—List C	3
	<hr/> 15-17

Senior Year**Seventh Semester**

CSCI 450 Principles of Software Engineering	3
CSCI 495 Explorations in Applied Computing	3
Physical or Biological Science	3-5
Free Electives	<u>6</u>
	15-17

Eighth Semester

CSCI Advanced Electives	6
Junior/Senior Integrator	3
Physical or Biological Science	3-5
Free Elective	3
CAND 991 Candidate for Graduation	<u>0</u>
	15-17

Master of Science

This program leads to a Master of Science degree from Purdue University. Many courses are offered in the late afternoon or evening to accommodate working students.

Computer science continues to evolve rapidly so research experiences are an essential aspect of graduate study. Students will expand their knowledge of modern computing and pursue either a research thesis or project. Students are expected to work closely with their faculty advisor and to contribute to the growth of knowledge in the field.

Application for Admission

Submit applications for admission to the graduate program directly to the Department of Computer and Information Science. Applications should be complete by May 1 for the following fall semester and October 15 for the following spring semester. To be considered for departmental graduate assistance, all application materials must be received by January 15 for the following fall semester or September 15 for the following spring semester. Apply early because it *may* take up to six months to complete the application process. See the department's Web site for additional information.

Students interested in advanced study or students who are required to complete preparatory courses and are waiting on application processing may take courses as graduate non-degree students. However, no more than 12 graduate credit hours earned as a non-degree student may be counted toward a graduate degree program. For guidelines and applications, contact the IUPUI Graduate Office, Union Building, 620 N. Union Drive, IUPUI, Indianapolis, IN 46202-5167; phone (317) 274-4023.

General Admission Requirements

The applicant to the graduate program must have a bachelor's or equivalent degree.

The applicant's record should exhibit outstanding achievement as indicated by the grade point average for each degree over his or her entire academic record. An applicant is expected to have a GPA of at least a 3.0 on a scale of 4.0 (letter grade A). The record should also demonstrate strong individual accomplishments and recommendations from independent references.

All applicants must submit their scores on the General Aptitude Test of the Graduate Record Examination

(GRE). The applicants are strongly encouraged to submit scores for the Computer Science subject test also.

All applicants should have a background in the following core areas of computer science:

- Software development experience in a high-level language
- Data structures and algorithms
- Systems (operating systems, compilers, and programming languages)
- Theory (discrete math and theory of computation)
- Hardware (computer architecture)

In addition, applicants should have a strong background in mathematics, including calculus, linear algebra, and in numerical computations.

All applicants whose native language is not English must submit a Test of English as a Foreign Language (TOEFL) score of at least 580 or pass an equivalent test administered by the university.

Provisional Admission

Those students who do not satisfy the admission requirements may request **provisional admission only** to the Graduate Program if they satisfy the following requirements:

possess a bachelor's degree with a cumulative GPA of 3.0/4.0

and

have taken 5 semester hour credits of calculus (MATH 163 or equivalent)

and

CSCI 265 (C++) or equivalent experience or credit

If provisional admission to the Graduate Program in Computer Science is granted, the student will be required to satisfy the stipulations of the admission, which may include satisfactorily completing one or more courses, before admission without provisions is granted.

Requirements for the Master of Science Degree in Computer Science

To receive the Master of Science degree, the applicant must be admitted as a graduate student **without provisions** and complete 30 semester credit hours of study in CSCI courses numbered 500 or above, at least 6 credit hours of which must be from the following core courses:

- 503 Operating Systems
- 504 Concepts in Computer Organization
- 565 Programming Languages
- 580 Algorithm Design, Analysis, and Implementation

Each student is required to submit to the Graduate Committee for approval an initial plan of study during the first year in the program. This is prepared in consultation with the faculty advisor. *Prior* to the semester of expected graduation, the student's formal plan of study must be submitted to, and accepted by, the Purdue University Graduate School. Each student must register in CAND 991 for 0 credits during the final semester before graduation.

Credit for Courses from Outside the Department

Credit for graduate courses taken at other institutions may be transferred with the approval of the Graduate Committee and the Graduate School if the courses have not been used for other degree requirements. Transfer credits are normally limited to 6 credit hours and are restricted to courses in which the grade is B or better. Up to 6 credit hours of graduate credit from a closely related discipline may be used to substitute for the elective courses subject to approval by the department prior to enrolling in them.

Assessment

The student's Graduate Examination Committee will examine the student's project or thesis and general proficiency in computer science. Grades of A and B are expected; up to 6 credit hours of C may be included provided an overall GPA of 3.0 (B) is maintained. Other grades are unacceptable.

Programs of Study

The department offers two programs of study within its M.S. Program: the Research Program and the Applied Program.

The objective of the Research Program is to develop a general knowledge of computer science, depth in a specific area, and an ability to do independent research. The student learns research techniques by working in close cooperation with a faculty member while doing the thesis research. In addition to the two core courses and 6 to 9 credit hours of thesis work, the student completes a sufficient number of electives from the department's graduate level courses to satisfy the requirement of 30 credits hours total.

The objective of the Applied Program is to develop skills and knowledge of the computer science fundamentals and an ability to apply these to practical problems. In addition to the two core courses, it requires at least two courses in a specialization, 3 to 6 credits of work in the project course, 695, and a sufficient number of electives from the department's graduate courses to complete the requirement of 30 credits hours. The course work is designed to provide breadth of knowledge to the professional as well as specialized knowledge in the areas that the project will require. The project normally involves at least two semesters of intensive work on an application of the course material to a problem of practical importance. This might be a project from the student's work environment, internship, or a faculty member's work. Its objective is generally of a more immediately practical nature than the thesis in the Research Program. The student carries out the project under the supervision of a faculty member.

The Applied Program offers a menu of courses from which the individual selects one or more specializations to prepare for the proposed project. To define a specialization, the graduate advisor and student identify on the plan of study two or more courses that provide depth in a cohesive theme.

Doctor of Philosophy

Students interested in research in certain areas and who qualify may be admitted to pursue a Ph.D. degree. Information on the general nature of the program appears in the "Graduate Programs" section of this bulletin. Consult the department for more specific information on how this might be arranged.

Courses in Computer and Information Science (CSCI)

Note: P—prerequisite; C—corequisite; R—recommended; Fall—offered fall semester; Spring—offered spring semester; Summer—offered in the summer session.

Undergraduate Level

Courses numbered with N are primarily for majors outside of computer science. They do not satisfy the major or minor requirements in computer science.

N100-Level Courses

Courses in this category are primarily for majors outside of science. They are especially for those who are not familiar with computers. These courses do not satisfy the computer science course requirement for School of Science majors. Science majors may use them for general elective credit with their department's approval.

N100 Introduction to Computers and Computing (3 cr.) P or C: MATH M010. No computing experience assumed. How computers work, word processing, spreadsheets, file management, and Internet skills. Emphasis on problem solving techniques. Lecture and laboratory. Credit given for only one of CSCI N100, CPT 106, or BUS K201.

N199 Introductory Computing Topics (topic varies) (1-3 cr.) Seminars in emerging technologies. May be repeated for credit.

N200-Level Courses

Courses in this category or higher levels satisfy the computer science course requirement for School of Science majors with the major department's approval. They assume some previous use of computers. Consult your faculty advisor before registering.

N201 Programming Concepts (3 cr.) Summary of basic computing topics, problem solving techniques, and their application to computing. Introduction to programming concepts with a focus on language-independent principles such as algorithm design, debugging strategies, essential control structures, and basic data structure concepts. Lecture and laboratory.

N205 Computing for the Paralegal (3 cr.) Summary of basic computing topics, problem solving techniques, and their application to computing. Introduction to software and problem solving methods of special interest to those entering the paralegal profession. Jointly offered with the Continuing Studies Paralegal Program. Lecture and Laboratory.

N207 Data Analysis Using Spreadsheets (3 cr.) P: MATH 111. Summary of basic computing topics. An introduction to data analysis using spreadsheets. Emphasis on the application of computational problem solving techniques. Lecture and laboratory.

N211 Introduction to Databases (3 cr.) Summary of basic computing topics. Introduction to database design concepts, creation of user forms, development of databases, querying techniques, and building

reports. Focus on relational database systems from development and administration point of view. Lecture and laboratory.

N241 Introduction to Web Design (3 cr.) Summary of basic computing topics. Introduction to the Internet and the World Wide Web. Emphasis on standard protocols, levels of connectivity, generating html documents with standard text editing tools, basic UNIX skills. Lecture and laboratory.

N299 Survey of Computing Applications (topic varies) (1-3 cr.) An introduction to an emerging technology in the computing field. It will emphasize the various problems technology helps to solve and specific problem solving strategies. Lecture and laboratory. May be repeated for credit.

N300-Level Courses

Prerequisite for all N300-level courses: one CSCI course at the N200 level or equivalent.

N301 Fundamental Computer Science Concepts (3 cr.) P: MATH M118. An introduction to fundamental principles of computer science, including hardware architecture, algorithms, software engineering, and data storage. Lecture and laboratory.

N305 C Language Programming (3 cr.) The basics of computer programming concepts using the C programming language. Emphasis on problem solving and algorithm implementation using a universal subset of the C programming language. Lecture and laboratory.

N307 Introduction to Programming Using Java (3 cr.) P: CSCI N241 or equivalent. Introduction to programming concepts focusing on the Java language. Essential algorithm design, basic program control concepts, essential data concepts, debugging and testing programs. The course will also include object-oriented programming, creating user interfaces, event handling, and multi-platform programming issues. *This course is primarily for students in the School of Informatics.*

In some cases, courses of level N311 or higher may be used as general elective credit by computer science majors with the prior approval of the department. You must consult your faculty advisor before registering.

N311 Advanced Database Programming, Oracle (3 cr.) P: CSCI N211 or equivalent. Focus on the concepts and skills required for database programming and client server development. Concepts will apply to any modern distributed database management system. Emphasis on developing Oracle SQLPlus scripts, PL/SQL server side programming, and Oracle database architecture. Students with programming experience in ODBC compliant languages will be able to practice connecting such languages to an Oracle database. Lecture and laboratory.

N321 System and Network Administration (3 cr.) P: CSCI N301 or equivalent. Fundamental concepts of system administration. Design and administration of network servers and workstations. Focus on basic network concepts such as user account administration, resource allocation, security issues, and Internet service management. Lecture and laboratory.

N323 Communication Security and Network Controls (3 cr.) P: CSCI N301 or equivalent. Conventional encryption, and many hardware, software, and managerial controls needed to operate a data communication network in a safe and secure manner. Emphasis is on security attacks, malicious programs, authentication, and availability. In addition, legal and ethical issues are covered.

N325 Design and Implementation of Local Area Networks (3 cr.) P: CSCI N301 or equivalent. The design, implementation, and configuration of local area networks. Working in groups, students install the necessary hardware and software to set up a LAN server with several clients. Students will explore topics including inter-networking, network management, network performance, and security.

N327 Communication Network Design (3 cr.) P: CSCI N301 or equivalent. An introduction to wide area networking, which is a technology used to extend telecommunications connectivity for information distribution over large geographic regions. Topics include architecture, design (including Frame Relay and ATM), and implementation, as well as the influence of the state and federal regulatory environments.

N331 Visual Basic Programming (3 cr.) An introduction to programming with a focus on rapid application development environments, event-driven programming, and programming in the Windows environment. Course will demonstrate how the major application types (spreadsheets, databases, text editors) are written. Lecture and laboratory.

N335 Advanced Programming, Visual Basic (3 cr.) P: N331 or equivalent. Databases and VB, object-oriented design and practice, the component object model, inter-object communication, related RAD environments such as VB for Applications and ActiveX using the Windows API, and generating online help. Lecture and laboratory.

N341 Web Programming (3 cr.) P: N241 or equivalent. Introduction to programming focusing on the World Wide Web. Essential algorithm design, client-side programming using languages such as JavaScript, interface technologies (including CGI interface), server-side programming with languages such as Perl, and an introduction to other languages and techniques of Web development. Lecture and laboratory.

N345 Advanced Programming, Java (3 cr.) P: N307 or N331 or N341 or equivalent. A Java language course designed for students familiar with programming and the World Wide Web. Focus on the unique aspects of Java, Applet, and GUI design, object-oriented programming, event-handling, multi-threaded applications, animation, and network programming. Lecture and laboratory.

N351 Introduction to Multimedia Programming (3 cr.) An integration of computing concepts and multimedia development tools. An introduction to the science behind multimedia (compression algorithms and digital/audio conversion). Use of authoring tools to create compositions of images, sounds, and video. Special emphasis given to using the Web as a multimedia presentation environment. Lecture and laboratory.

N355 Introduction to Virtual Reality (3 cr.)

Explore concepts of 3D imaging and design including primitive shapes, transformations, extrusions, facesets, texture mapping, shading, and scripting. Lecture and laboratory.

N399 Topics in Computing (topic varies)

(1-3 cr.) P: CSCI N200-level course or equivalent. An investigation of an emerging language or topic in computing. May be repeated for credit.

N485 Capstone Project in Applied Computing (3 cr.)

P: CSCI N301 and N341. This course provides students with a mechanism for producing and integrating technical achievement meritorious of program culmination. The project shall demonstrate subject matter mastery in project development guidelines, and reflect both a breadth and depth of technically focused problem-solving skills.

N499 Topics in Applied Computing (topic varies)

(1-3 cr.) P: CSCI N300-level course or equivalent. An investigation and examination of an emerging discipline in applied computer science.

Courses for Majors**230 Computing I (4 cr.)**

P or C: MATH 163. The context of computing in history and society; information representation in digital computers; introduction to programming in a modern high-level language; introduction to algorithms and data structures; their analysis and implementation as programs.

240 Computing II (4 cr.) P: 230. Overview of computer architecture; fundamentals of operating systems; introduction to programming languages; file organization and database concepts; social and ethical issues in computing.

242 Computing II for Engineers (2 cr.) Overview of fundamentals of operating systems; introduction to programming languages, file organization, and database concepts.

265 Advanced Programming (3 cr.) P or C: 240. Fall, Spring. The primary objective of the course is to teach students advanced programming skills and concepts. Introduction to the principles of software engineering; problem specification and program design with emphasis on object-oriented programming, programming style, debugging, and documentation. A significant software development project is required.

300 Systems Programming (3 cr.) P or C: 240 and 265. Fall. Assembly language programming and structure of a simple and a typical computer. Pseudo operations, address structure, subroutines, and macros. File I/O and buffering techniques. Interfacing with high-level languages. Assemblers: one and two pass assemblers, system dependent and independent assembler features, design options. Loaders, linkers, and macro processors.

340 Discrete Computational Structures (3 cr.)

P: 240 and MATH 164. Fall. Theory and application of discrete mathematics structures and their relationship to computer science. Topics include sets, relations, functions, permutations, combinatorics, graphs, trees, Boolean algebra, recurrence relations, group theory, and finite-state automata.

355 Introduction to Programming Languages (3 cr.)

P: 265 and 340. Spring. Programming language concepts and different paradigms of

programming. Topics include syntax and semantics of high-level languages, parsing methods, subprograms and their implementation, data abstraction, language translation overview including lexical analysis, syntax-directed translation, symbol table handling, code generation, functional programming, logic programming, and object-oriented programming.

362 Data Structures (3 cr.)

P: 265 and 340. Spring. A study of the design and analysis of data structures and algorithms. Abstract data types: arrays, stacks, queues, lists, trees, graphs. Algorithms: sorting, searching, hashing. File structures: organization and access methods.

402 Architecture of Computers (3 cr.)

P: 340. Fall. Basic logic design. Storage systems. Processor organization: instruction formats, addressing modes, subroutines, hardware and microprogramming implementation. Computer arithmetic, fixed and floating point operations. Properties of I/O devices and their controllers. Interrupt structure. Virtual memory structure, cache memory. Examination of architectures such as microcomputers, minicomputers, vector and array processors.

403 Introduction to Operating Systems (3 cr.)

P: 300, 362, and 402. Spring. Operating system concepts; history, evolution and philosophy of operating systems. Concurrent processes, process coordination and synchronization, CPU scheduling, deadlocks, memory management, virtual memory, secondary storage and file management, device management, security and protection, networking, distributed and real-time systems.

414 Numerical Methods (MATH 414) (3 cr.)

P: MATH 262 or MATH 351. Fall. Error analysis, solution of nonlinear equations, direct and iterative methods for solving linear systems, approximation of functions, numerical differentiation and integration, numerical solution of ordinary differential equations. Not open to students with credit in 512.

436 Principles of Computer Networking (3 cr.)

Survey of underlying principles, fundamental problems, and their solutions in designing computer networks. Laboratory projects include using network systems and network simulation environments. Topics include: motivations, networking topologies, layered open systems protocols, transmission capacity, circuit and packet switching, packet framing and error correction, routing, flow and congestion control, and internetworking.

437 Introduction to Computer Graphics (3 cr.)

P: 362, and MATH 262 or MATH 351. Spring. An introduction to graphics hardware; implementation and interaction with operating systems. Mathematical aspects of computer graphics: 2D and 3D transformations, homogeneous coordinates, clipping, 3D views and hidden line removal, 3D realistic viewing. High-level issues in user-interface design, application of computer graphics in science and industry, and application software packages.

443 Database Systems (3 cr.)

P: 362. Fall. Relational database systems: architecture, theory, and application. Relational data structure, integrity rules, mathematical description, data manipulation. Standard SQL and its data manipulation language, engineering aspects of database design in industry, introduction to non-relational database systems.

446 Introduction to Microprocessor

Architecture (3 cr.) P: 402. Introduction to programmable logic; elements of microprocessor system design; interrupt structures; interfacing using LSI devices; hardware timers; interactive debugging; physical device I/O programming; vectored and polled service; microprocessor architecture; self-paced laboratory using A/D converters, D/A converters, etc.

450 Principles of Software Engineering (3 cr.)

P: 355 and 362. Fall. Tools and techniques used in software development. Lifecycle concepts applied to program specification, development, and maintenance. Topics include overall design principles in software development; the use of structured programming techniques in writing large programs; formal methods of program verification; techniques and software tools for program testing, maintenance, and documentation.

452 Object-Oriented Analysis and Design (3 cr.)

P: 355 and 362. Spring. Introduction to the object-oriented paradigm in software development. Basic concepts: objects, classes, messaging, inheritance, methodologies. Analysis: defining objects, structures, attributes, services. Design: transforming the analytic model into the design model. Implementation: comparison of the support features provided by languages such as Smalltalk, C++, Eiffel, and CLOS. A significant design project.

463 Analysis of Algorithms (3 cr.)

P: 362. Techniques for analyzing and comparing algorithms. Average case analysis in sorting and searching; dynamic programming: greedy algorithms, amortized analysis, and applications; matrix algorithms: polynomials, discrete Fourier transforms, and fast Fourier transforms; parallel algorithms: examples in sorting, searching, graphs, and matrices; computational complexity, polynomial complexity classes P, NP.

470 Automata and Formal Languages (3 cr.)

P: 362. Fall. Introduction to formal languages and automata theory: finite automata and regular expressions, context-free grammars and languages, pushdown automata, equivalence of CFGs and pushdown automata, application of pushdown automata in parsing, closure properties, pumping lemmas, decision procedures, Turing machines, computability, undecidability, and a brief survey of the Chomsky hierarchy.

475 Scientific Computing I (3 cr.)

P: 230 and MATH 351. P or C: MATH 262. Fall. Solving scientific problems on computers. Languages for scientific computing. Software development on workstations: using tools the environment provides, organization of programs. Computer architecture: impact on software and algorithms. Problem formulation: model selection/simplification, relationship to numerical methods. Solution of linear equations: methods and packages. Nonlinear equations and optimization problems.

476 Scientific Computing II (3 cr.)

P: 475. Spring. Elementary statistical computing: time series analysis, model fitting, robust methods, generation of pseudorandom numbers, and Monte Carlo methods. Interpolation and curve fitting; numerical integration. Solving ordinary differential equations. Use of packaged environments and symbolic computation for scientific purposes.

477 High Performance Computing (3 cr.) P: 476. Fall. Architecture of supercomputers: pipelined, vector, SIMD, MIMD; implications for algorithm and program design; vectorization, parallelization, loop restructuring, nonstandard language features. Splitting computation between supercomputers and workstations; interactive analyses of remote machines' output. Numerical methods for large-scale problems: examples from continuum mechanics, graphical visualization, statistical computing. A project is required.

485 Expert System Design (3 cr.) P: 362. Overview of artificial intelligence; expert system technology; early expert systems: MYCIN, DENDRAL; theoretical foundations, uncertainty measures, knowledge representation, inference engines; reasoning mechanisms: forward and backward chaining; explanation systems, expert system shells, tools, and intelligent hybrid systems.

487 Artificial Intelligence (3 cr.) P: 362. Study of key concepts and applications of artificial intelligence. Problem-solving methods, state space search, heuristic search, knowledge representation: predicate logic, resolution, natural deduction, nonmonotonic reasoning, semantic networks, conceptual dependency, frames, scripts, and statistical reasoning; advanced AI topics in game playing, planning, learning, and connectionist models.

490 Topics in Computer Sciences for Undergraduates (1-5 cr.) By arrangement. Fall, spring, summer. Supervised reading and reports in various fields. Open to students only with the consent of the department.

495 Explorations in Applied Computing (1-6 cr.) Fall, spring, summer. Explorations in Applied Computing is an undergraduate capstone experience. Students will work in teams, advised by faculty and external liaisons, to solve real-world computing problems. This hands-on experience will cultivate technical expertise, utilization of analytical thinking, quantitative reasoning, project management skills, and communication skills.

Undergraduate and Graduate Level

These courses require admission to the graduate program or permission of the department.

**Course pending approval.*

502 Compiling and Programming Systems (3 cr.) P: 300. R: 470. Fall. Basic principles of compilers and compiler design; control of translation, loading, and execution; symbolic coding systems; lexical and syntactic analysis; design and operation of assemblers and macroprocessors; design of interpretive systems. Students are expected to complete a large programming project as part of the course.

503 Operating Systems (3 cr.) P: 403. Spring. Basic principles of operating systems: addressing modes, indexing, relative addressing, indirect addressing, stack maintenance; implementation of multitask systems; control and coordination of tasks, deadlocks, synchronization, mutual exclusion; storage management, segmentation, paging, virtual memory, protection, sharing, access control; file systems; resource management; evaluation and prediction of performance.

504 Concepts in Computer Organization (3 cr.) P: 402. The fundamentals of computer hardware for computer scientists. An overview of the organization of modern computers, ranging from sequential to advanced machines. CISC, RISC, and vector processors; multiprocessors; virtual storage, hierarchical memory; interaction with O/S; connection models; high-level programming support; cost/performance analysis.

506 Management of the Software Development Process (3 cr.) A survey of the fundamental principles and concepts of managing a software project. Topics include life cycle models, standards and goals, cost estimation, risk analysis, tool use, component reuse, traceability, metrics, process control and improvement. Students are required to apply management concepts using a project-based approach.

507 Object-Oriented Design and Programming (3 cr.) An advanced exploration of the object-oriented model and programming. Topics range from a review of the object model to advanced concepts such as abstraction mechanisms, standard library/packages, OO design using an OO language, the syntax and the semantics of constructs.

512 Numerical Methods for Engineers and Scientists (3 cr.) P: MATH 351 or MATH 511; MATH 510; and knowledge of programming. Not open to students with credit in 414. Not normally accepted for graduate credit in computer science programs. A survey of the useful methods of computation. Solution of nonlinear equations and systems of nonlinear equations. Numerical methods for systems of linear equations. Approximate differentiation and integration. Numerical solution of ordinary differential equations. Introduction to partial differential equations and elementary approximation methods.

514 Numerical Analysis (3 cr.) P: 414 or equivalent. Iterative methods for solving nonlinear equations; linear difference equations; applications to solution of polynomial equations; differentiation and integration formulas; numerical solution of ordinary differential equations; round-off error bounds.

515 Numerical Analysis of Linear Systems (3 cr.) P: Knowledge of programming, and MATH 351 or MATH 511. Computational aspects of linear algebra; linear equations and matrices; direct and iterative methods; eigenvalues and eigenvectors of matrices; error analysis.

516 Computational Methods in Applied Mathematics (3 cr.) P: CSCI 265 and MATH 510 or consent of instructor. A study of techniques such as direct integration, shooting, finite difference, finite elements, method of weighted residuals, and methods of characteristics for solving problems in fluid mechanics, solid mechanics, dynamics, and other fields of applied mathematics.

520 Computational Methods in Analysis (3 cr.) P: 220 or 230 or equivalent, and MATH 351 or MATH 511. A treatment of numerical algorithms for solving classical problems in real analysis with primary emphasis on linear and nonlinear systems of equations and on optimization problems; the writing, testing, and comparison of numerical software for solving such problems; a discussion of the characteristics of quality software for implementing these algorithms.

536 Data Communication and Computer Networks (3 cr.) P: 402. Data communications: communication hardware technologies including local area and long-haul network hardware, circuit and packet switching, interfaces between computer and network hardware, and performance issues. Network architecture: protocol software and conceptual layering, reliable delivery over an unreliable channel, transport protocols, virtual circuits, datagrams, Internet working as a fundamental design concept, the client-server paradigm, naming and name binding, name servers, addressing and address resolution, routing and routing algorithms, congestion and flow control techniques, network file systems, distribution of computation, DARPA Internet protocols (TCP/IP) as examples of protocol organization.

***537 Introduction to Distributed Computing (3 cr.)** P: 503, 536. Introduction to the principles and methods in the design of distributed computing systems. It covers the fundamentals of distributed computing from four perspectives: underlying communication media, protocols and their implications; operating system issues; high-level language constructs; and distributed algorithms.

***538 The Design of Interactive Systems (3 cr.)** Fundamental concepts and tools employed in designing the interaction between humans and machines and the mediating interfaces. Topics include: design problem, interface design concepts, experimental design and analysis, cognitive and predictive models, the design project, case studies, and applications.

***539 Computing with Distributed-objects (3 cr.)** An introductory treatment of the distributed-object model and programming. The topics range from a review of the distributed and object models of computation to advanced concepts such as remote method invocations, object brokers, object services, open systems, and future trends for distributed-object systems.

541 Database Systems (3 cr.) P: 443 or equivalent. Spring. Fundamentals for the logical design of database systems. The entity-relationship model, semantic model, relational model, hierarchical model, network model. Implementations of the models. Design theory for relational databases. Design of query languages and the use of semantics for query optimization. Design and verification of integrity assertions, and security. Introduction to intelligent query processing and database machines.

543 Introduction to Simulation and Modeling of Computer Systems (3 cr.) P: 265 and STAT 511 or equivalent. Simulation: discrete event simulation, process oriented simulation, generating random numbers, simulation languages, simulation examples of complex systems. Nondeterministic models: random variables, Poisson process, moment generating functions, statistical inference, and data analysis. Modeling: elementary queuing models, network of queues, applications to performance evaluation of computer systems.

547 Information Storage and Retrieval and Natural Language Processing (3 cr.) P: 541. Complex data structures of fields within records, as well as clustered, multilist, and inverted files; key

decoding by tree and randomized techniques; overall techniques of classical document retrieval systems, e.g., the MEDLARS and NASA systems; overall techniques of automatic document retrieval systems, e.g., TIP and SMART, the internal structure of SMART; question answering systems; natural language translation.

548 Introduction to Bioinformatics (3 cr.) P: CSCI 340, BIOL K483, CHEM C483, or MATH 511. Analysis of biological data employing various computational methods to obtain useful information in the emerging area of bioinformatics. Topics include: structures, functions and evolution of proteins and nucleic acids, retrieval and interpretation of bioinformation from the Internet, learning principles, algorithms and software for sequence alignment, similarity search of sequence databases, estimation of phylogenetic trees, structural prediction, and functional inference.

549 Intelligent Systems (3 cr.) This course will discuss problems in the area of intelligent systems. Topics include the formalisms within which these problems are studied, the computational methods that have been proposed for their solution, and the real-world technological systems to which these methods have been applied.

***550 Computer Graphics (3 cr.)** An introduction to computer graphics. Topics include the concepts, principles, algorithms, and programming techniques in 3D interactive computer graphics. Emphasis is on the development and applications of 3D graphic algorithms and methods.

***552 Advanced Graphics and Visualization (3 cr.)** P: 550. An introduction to data visualization methods and tools, and related graphics techniques. Students will explore a variety of data representation and modeling techniques, their corresponding visualization algorithms, and practical visualization applications in scientific, engineering, and biomedical fields.

***553 Recent Trends in Database Systems (3 cr.)** P: 503, 541. Emerging topics in database systems. Topics cover advanced applications including management of multimedia, spatial, and semi-structured data; database integration; Web databases; electronic commerce; digital libraries; and data mining.

***554 Special Topics in Visual Computing (3 cr.)** P: 550. Emerging topics in 3D computer graphics, visualization, virtual and augmented environments, image processing, image and video compression, and computer vision.

556 Fault-Tolerant Computing (3 cr.) P: 362. Concepts of fault-tolerant computing; phases of fault-tolerance; applications to commercial, communication, and aerospace systems; fault-tolerance in multiprocessor systems; diagnosis techniques; software fault-tolerance.

565 Programming Languages (3 cr.) P: 300. R: 470. Fall. An exploration of modern or unconventional concepts of programming languages, their semantics, and their implementations; abstract data types; axiomatic semantics using Hoare's logic and Dijkstra's predicate transformers; denotational

semantics; functional, object-oriented, and logic programming; concurrency and Owicki-Gries theory. Example languages include ML, Ada, Oberon, LISP, PROLOG, and CSP.

580 Algorithm Design, Analysis and Implementation (3 cr.) P: 463 and 470. Basic techniques for designing and analyzing algorithms: dynamic programming, divide-and-conquer, balancing, upper and lower bounds on time and space costs, worst case and expected cost measures. A selection of applications such as disjoint set union/find, graph algorithms, search trees, pattern matching. The polynomial complexity classes P, NP, and co-NP; intractable problems.

582 Automata and Formal Languages (3 cr.) P: 470. Spring. Finite automata, regular expressions; push-down automata, context-free grammars; languages and behaviors. Closure properties, pumping lemmas, decision procedures. Deterministic context-free languages and LR(k) parsing; brief survey of the Chomsky hierarchy.

585 Mathematical Logic I (MATH 585) (3 cr.) Students should register for MATH 585. P: MATH 351. Formal theories for propositional and predicate calculus with study of models, completeness, compactness. Formalization of elementary number theory; Turing machines, halting problem, and the undecidability of arithmetic.

590 Topics in Computer Science (3 cr.) By arrangement. Fall, spring. Directed study for students who wish to undertake individual reading and study on approved topics.

Graduate Level

614 Numerical Solution of Ordinary Differential Equations (3 cr.) P: 514. Numerical solution of initial-value problems by Runge-Kutta methods, general one-step methods, and multistep methods. Analysis of truncation error, discretization error, and rounding error. Stability of multistep methods. Numerical solution of boundary-value and eigenvalue problems by initial-value techniques and finite difference methods.

615 Numerical Solution of Partial Differential Equations (3 cr.) P: 515 and MATH 523. The numerical solution of hyperbolic, parabolic, and elliptic equations by finite difference methods; iterative methods (Gauss-Seidel, overrelaxation, alternating direction) for solving elliptic equations; discretization and round-off errors; explicit and implicit methods for parabolic and hyperbolic systems; the method of characteristics; the concept of stability for initial value problems.

660 Design of Translating Systems (3 cr.) P: 502. Systems design of higher-level programming languages and their processors; symbol tables, lexical scan, syntax scan, object code generation and optimization; boot-strapping techniques, higher-level translators, self-compilers, and decompilers; heuristic generators.

661 Formal Compiling Methods (3 cr.) P: 502. Application of concepts developed in formal language and automata theory to the design of programming languages and their processors. Models of syntactic analysis, including canonical precedence, LR(k) and LL(k) parsing methods and variants; efficiency of

each. Synthesis techniques, including symbol tables, storage administration, parameter mechanisms, garbage collection; optimization considerations. Models of synthesis, including level, affix, attributed grammars; prospects of fully automating compiler design. Applicative vs. procedural languages and their implementations based on semantic definition of a language (LISP, Lucid) and on proof-like techniques (PROLOG, equational systems); merits of such approaches.

695 M.S. Project (1-9 cr., maximum of 6 credit hours apply to degree) P: Instructor's consent. The student integrates and applies the knowledge gained from the formal course work to formulate and execute a solution to a problem of practical importance. The faculty advisor and the sponsoring organization mentor, if applicable, provide guidance and evaluation.

698 Research M.S. Thesis (1-18 cr.)

Department of Geology

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Adjunct Professors Brothers, Cohen, Ghosh,
Kleinhans, Lindsey, Perry, Robinson, Simmel, Souch

Departmental Academic Advisor Barth

Geology is the study of the planet Earth—the materials of which it is made, the processes that act upon these materials, and the history of the planet and life forms since its origin. Geology considers the physical forces acting on the earth, the chemistry of its constituent materials, and the biology of its past inhabitants. Geology also includes the study of the interrelationships in the modern environment of humans and geological phenomena and focuses on such important concerns as how our global climate is changing and how that change will affect human activities.

The Department of Geology offers the Bachelor of Arts (B.A.) and Bachelor of Science (B.S.) degrees from Indiana University. These programs prepare students for graduate studies and for a variety of careers with emphasis on investigation of the environment by federal and state agencies, industries, and consulting companies. The programs allow flexibility to accommodate the needs and interests of all students. Selection of a particular program should be made in consultation with a departmental advisor.

The Department of Geology offers graduate study leading to the Master of Science (M.S.) degree

granted by Indiana University. The M.S. program offers both thesis and nonthesis options.

Faculty and students of the Department of Geology are actively engaged in basic and applied research. Specific research areas include igneous petrology, geochemistry, hydrogeology, glacial geology and soils, sedimentary geochemistry, paleoclimate, biomineralization, sedimentology, history of geology, and paleontology.

Associate of Environmental Geoscience

(This program is in the approval process for an Indiana University degree. Please consult the department for the official status of the program.)

This program provides a foundation of knowledge concerning earth surface processes necessary for employment in the environmental industry, as well as college-level skills in data collection, analysis, and communication.

Admission Requirements

Admission requirements are the same as those of the undergraduate programs in the Department of Geology and the School of Science as listed in this bulletin.

Degree Requirements

Freshman Experience Course (for beginning freshmen and transfer students with less than 18 credit hours):

SCI 120 Windows on Science (1 cr.) or an equivalent first-year experience course.

Area I See School of Science "Area Requirements for Associate Degrees" in this bulletin. The second writing course will be satisfied by GEOL G205.

Area II No foreign language is required.

Area IIIA See School of Science "Area Requirements for Associate Degrees" in this bulletin.

Area IIIB No courses are required in this area.

Area IIIC Physical and Biological Sciences CHEM C105/C125, C106/C126, and C341, and BIOL N107 and K341.

Area IIID Mathematical Sciences MATH 153-154 and CSCI N207.

Area IV Geology 25 credit hours in geology, including G110, G205, G206, G300, G303, G403, G430, and G445.

Bachelor of Arts

(Granted by Indiana University)

Degree Requirements

Area I See the School of Science requirements under "Undergraduate Programs" in this bulletin. The second semester of English composition may be satisfied by ENG W132 (or ENG W150) or ENG W231. GEOL G205 may partially satisfy this requirement in Area I, but the 3 credit hours cannot then also be counted as part of the geology credit hours required in Area IV.

Area II First-year proficiency in a modern foreign language is required for the Bachelor of Arts degree program. See the School of Science requirements under "Undergraduate Programs" in this bulletin.

Area IIIA See the School of Science requirements under "Undergraduate Programs" in this bulletin.

Area IIIB See the School of Science requirements under "Undergraduate Programs" in this bulletin.

Area IIIC Physical and Biological Sciences See the School of Science requirements under "Undergraduate Programs" in this bulletin, but all four courses must include laboratories; at least two of the four courses must include CHEM C105/C125, C106/C126; and at least one of the four courses must be in biological sciences. No grade below C- will be accepted in any of these courses.

Area IIID Mathematical Sciences MATH 153-154 or MATH 151 and CSCI N207 or another CSCI course approved by the Department of Geology. No grade below C- will be accepted in any of these courses.

Area IV Geology Concentration

Requirements 40 credit hours of geology, including G110, G205, G206, G209, G221, G222, G303, G304, G323, G334, G495, and three 400-level or higher geology courses. Other 100-level courses and G300 do not count toward the geology concentration of 40 credit hours, but may be applied as electives toward the university-required total of 122 credit hours. No grade below C- will be accepted in any of these courses.

Other Requirements

See the School of Science requirements under "Undergraduate Programs, Baccalaureate Degree, General Requirements" in this bulletin. GEOL G420, G460, or G495 may be used to satisfy the School of Science capstone requirement, upon approval by the Department of Geology. The Department of Geology will accept 10 credit hours toward graduation outside the Schools of Science and Liberal Arts.

Bachelor of Science

(Granted by Indiana University)

Degree Requirements

Area I See the School of Science requirements under "Undergraduate Programs" in this bulletin. The second semester of English composition may be satisfied by ENG W132 or ENG W231. GEOL G205 may partially satisfy this requirement in Area I, but the 3 credit hours cannot then also be counted as part of the geology credit hours required in Area IV.

Area II No foreign language is required.

Area IIIA See the School of Science requirements under "Undergraduate Programs" in this bulletin.

Area IIIB See the School of Science requirements under "Undergraduate Programs" in this bulletin.

Area IIIC Physical and Biological Sciences CHEM C105/C125, C106/C126; PHYS P201-P202 or 152-251; and two courses in biological

sciences, with the Department of Geology's approval. No grade below C- will be accepted in any of these courses.

Area IIID Mathematical Sciences MATH 163-164; CSCI N207 or another CSCI course approved by the Department of Geology; and one course in statistics approved by the Department of Geology. No grade below C- will be accepted in any of these courses.

Area IV Geology Concentration

Requirements 43 credit hours of geology, including G110, G205, G206, G209, G221, G222, G303, G304, G323, G334, three 400-level or higher geology courses, and a field camp of at least 3 credit hours approved by the faculty of the Department of Geology. Other 100-level courses and G300 do not count toward the geology concentration requirement of 43 credit hours, but may be applied as electives toward the university-required total of 122 credit hours. No grade below C- will be accepted in any of these courses.

General Two science courses at the 300-400 level approved by the Department of Geology. No grade below C- will be accepted in any of these courses.

Other Requirements

See the School of Science requirements under "Undergraduate Programs, Baccalaureate Degree, General Requirements" in this bulletin. GEOL G420, G460, or G495 may be used to satisfy the School of Science capstone requirement, upon approval by the Department of Geology. The Department of Geology will accept 10 credit hours toward graduation outside the Schools of Science and Liberal Arts.

Minor in Geology

(Granted by Indiana University)

The undergraduate minor in geology requires 18 credit hours of courses, with an overall grade point average of 2.0 (C) and with no grade less than a C-, distributed as follows:

1. Students must complete the following five courses which total 12 credit hours: G110 (3 cr.), G130 (1 cr.), G206 (2 cr.), G209 (3 cr.), and G221 (3 cr.).
2. Students must complete an additional 6 credit hours minimum, including two of the following courses: G222 (3 cr.), G304 (3 cr.), G334 (3 cr.), G406 (3 cr.), G415 (3 cr.), G430 (4 cr.), and G451 (3 cr.).

At least 9 credit hours of the minor must be taken at IUPUI. In addition, recommended courses include one year of college chemistry and at least one course in college algebra.

Geology Plans of Study

There is no single semester-by-semester plan of study for either the B.A. or B.S. degree because of the flexibility encouraged within the program. However, one possible sequence of courses for each degree is given below; variations from these samples of plans of study should be made in consultation with a departmental advisor.

Bachelor of Arts (122 cr. required)**Freshman Year****First Semester**

GEOL G110 Physical Geology	3
GEOL G206 Advanced Physical Geology Laboratory	2
CHEM C105/C125 Principles of Chemistry I	5
ENG W131 Elementary Composition I	3
MATH 153 Algebra and Trigonometry I	3
SCI 120 Windows on Science	1
	<hr/> 17

Second Semester

COMM R110 Fundamentals of Speech Communication	3
CHEM C106/C126 Principles of Chemistry II	5
MATH 154 Algebra and Trigonometry II	3
Second Composition Course	3
	<hr/> 14

Sophomore Year**Third Semester**

GEOL G209 History of the Earth	3
GEOL G221 Introductory Mineralogy	3
BIOL N107 Exploring the World of Animals	4
HIST H114 History of Western Civilization II	3
CSCI N207 Data Analysis Using Spreadsheets	3
	<hr/> 16

Fourth Semester

GEOL G205 Reporting Skills in Geoscience	3
GEOL G222 Introductory Petrology	3
BIOL K101 Concepts of Biology I	5
Social Sciences—List S	3
	<hr/> 14

Junior Year**Fifth Semester**

GEOL G303 Geologic Mapping and Field Methods	4
GEOL G334 Principles of Sedimentation and Stratigraphy	3
Comparative World Cultures—List C	3
Junior/Senior Integrator	3
Elective	3
	<hr/> 16

Sixth Semester

GEOL G304 Principles of Paleontology	3
GEOL G323 Structural Geology	3
Humanities—List H	3
Elective	3
Elective	3
	<hr/> 15

Senior Year**Seventh Semester**

GEOL 400-level Electives	6
Elective	3
300-level Elective	3
Elective	3
	<hr/> 15

Eighth Semester

GEOL G495 Senior Thesis in Geology	1
GEOL 400-level Elective	3
300-level Electives	9
Elective	3
CAND 991 Candidate for Graduation	0
	<hr/> 16

Bachelor of Science (122 cr. required)**Freshman Year****First Semester**

GEOL G110 Physical Geology	3
GEOL G206 Advanced Physical Geology Laboratory	2
ENG W131 Elementary Composition I	3
MATH 163 Integrated Calculus and Analytic Geometry I	5
CSCI N207 Data Analysis Using Spreadsheets	3
SCI 120 Windows on Science	1
	<hr/> 17

Second Semester

COMM R110 Fundamentals of Speech Communication	3
CHEM C105/C125 Principles of Chemistry I	5
MATH 164 Integrated Calculus and Analytic Geometry II	5
Second Composition Course	3
	<hr/> 16

Sophomore Year**Third Semester**

GEOL G209 History of the Earth	3
GEOL G221 Introductory Mineralogy	3
CHEM C106/C126 Principles of Chemistry II	5
PHYS P201 General Physics I	5
	<hr/> 16

Fourth Semester

GEOL G205 Reporting Skills in Geoscience	3
GEOL G222 Introductory Petrology	3
BIOL N107 Exploring the World of Animals	4
PHYS P202 General Physics II	5
	<hr/> 15

Junior Year**Fifth Semester**

GEOL G303 Geologic Mapping and Field Methods	4
GEOL G334 Principles of Sedimentation and Stratigraphy	3
BIOL K101 Concepts of Biology I	5
HIST H114 History of Western Civilization II	3
	<hr/> 15

Sixth Semester

GEOL G304 Principles of Paleontology	3
GEOL G323 Structural Geology	3
STAT 301 Elementary Statistical Methods I	3
300–400-level Non-geology Science Elective	3
Social Sciences—List S	3
	<hr/> 15

Senior Year**Seventh Semester**

GEOL 400-level Electives	6
300–400-level Non-geology Science Elective	3
Comparative World Cultures—List C	3
Humanities—List H	3
	<hr/> 15

Eighth Semester

GEOL 400-level elective	3
GEOL G495 Senior Thesis in Geology	1
GEOL 400-level Elective	3
Junior/Senior Integrator	3
Electives	4
CAND 991 Candidate for Graduation	0
	<hr/> 14

Master of Science

The Department of Geology graduate program leads to a Master of Science degree from Indiana University. The program is administered by a departmental graduate advisory committee, composed of the graduate advisor and two or more members of the graduate faculty.

Admission Requirements

Prospective students should have a bachelor's degree in geology, including a summer field course, and a minimum of a B (3.0) average in geology courses. One year of chemistry and mathematics through college algebra and trigonometry are required. Individuals with a bachelor's degree in another area of science are also encouraged to apply; the departmental graduate advisory committee will prescribe a plan of study to remove deficiencies. The Graduate Record Examination (GRE) General Test is required; the Subject Test in Geology is optional. Each student must submit three letters of recommendation.

Financial Aid

Admitted students may be appointed as research assistants or teaching assistants in introductory geology courses. Several such assistantships are available each year. Assistantships include remission of tuition and fees.

Degree Requirements

Both thesis and non-thesis options are available. Both options require at least 18 credit hours of non-research course work in geology and at least 3 credit hours in courses approved for graduate credit from allied sciences, mathematics, or the environmental program of the School of Public and Environmental Affairs (SPEA). Up to 6 credit hours of 400-level courses approved for graduate credit may be counted toward the degree with the approval of the graduate advisor. The thesis option requires the completion of 30 credit hours, 6 of which are taken as G810 Research (the thesis). The non-thesis option requires the completion of 36 credit hours, 3 of which consist of a research project taken as G700 Geologic Problems. The departmental graduate committee must approve elective credits outside of the Department of Geology for both options.

Admitted students will be assigned a three-person advisory committee at the beginning of the first year of graduate study. The committee will prescribe a study program based on the interests of the student and the principal graduate advisor. Students must complete all degree requirements within six years of beginning this study program. A B (3.0) average or higher must be maintained, and no grade below C is acceptable.

Bachelor of Science/Master of Science Program

The B.S./M.S. program blends the undergraduate B.S. program with the M.S. program in geology, leading to the award of an Indiana University bachelor's and master's degree with completion of the M.S. thesis. The departmental graduate advisory committee administers the B.S./M.S. program.

Admission Requirements

Prospective students should have advanced standing in the undergraduate program. Students should apply to the program in early spring of the junior year. Students should submit GRE scores and three letters of recommendation. Application requires a minimum GPA of 3.0, and will be considered by the departmental graduate committee.

Degree Requirements

Course and thesis requirements are the same as those listed under the Master of Science program in this bulletin. Upon acceptance into the program, the student will prepare a research and course plan in consultation with a graduate academic advisory committee. Research reading and data collection begins in the summer prior to the senior year of undergraduate study, and will be completed in the following summer. The fifth year of study is devoted to graduate course work and completion of the M.S. thesis.

Courses in Geology (GEOL)

Courses with numbers in the 100s and 200s are lower-division undergraduate courses. Courses with numbers in the 300s and 400s are upper-division undergraduate courses that may, in some cases, be used for graduate credit. Courses in the 300s may be used for graduate credit by graduate students in education, but not by other students. Courses in the 400s may be taken for graduate credit by all graduate students. Courses numbered 500 or higher are graduate courses.

Note: P—prerequisite; C—corequisite; R—recommended; Fall—offered fall semester; Spring—offered spring semester; Summer—offered in the summer session; Day—offered as a daytime section; Night—offered as an evening section. For courses with no designated semester or section, consult the *Schedule of Classes*. *Equiv.*—course is equivalent to the indicated course taught at Indiana University, Bloomington or the indicated course taught at Purdue University, West Lafayette.

G107 Environmental Geology (3 cr.) P: None. Fall, spring, summer. An introduction to geology through discussion of geological topics that show the influence of geology on modern society. Topics include mineral and energy resources, water resources, geologic hazards and problems, geology and health, and land use.

G109 Fundamentals of Earth History (3 cr.) P: None. Fall, spring, summer. Basic principles of earth history: geologic time, basic rock types, reconstructing past environments. Physical development of the earth: its interior, mountain formation, plate tectonics. Origin and development of life: evolution, the fossil record. With laboratory G119, equivalent to IU GEOL G104, IU GEOL G112, and PU GEOS 112.

G110 Physical Geology (3 cr.) P: None. Fall, spring, summer. Introduction to processes within and at the surface of the earth. Description, classification, and origin of minerals and rocks. The rock cycle. Internal processes: volcanism, earthquakes, crustal deformation, mountain building, plate tectonics.

External processes: weathering, mass wasting, streams, glaciers, ground water, deserts, coasts. With laboratory G120, equivalent to IU GEOL G103, IU GEOL G111, and PU GEOS 111.

G115 Introduction to Oceanography (3 cr.) P: None. Fall, spring, summer. Nonmathematical introduction to the geology, biology, and physical characteristics of the ocean. Includes waves, tides, and currents of the world ocean, the adaptations and distribution of marine animals, pollution of the marine ecosystem, and an introduction to the global ocean/atmosphere system.

G117 Environmental Geology Laboratory (1 cr.) P or C: G107. Fall, spring, summer. Laboratory exercises in environmental aspects of the geosciences. To accompany G107.

G119 Fundamentals of Earth History Laboratory (1 cr.) P or C: G109. Fall, spring, summer. Laboratory studies of rocks, fossils, and stratigraphic principles to reconstruct past environments and interpret earth history. To accompany G109.

G120 Physical Geology Laboratory (1 cr.) P or C: G110. Fall, spring, summer. Laboratory studies of minerals and rocks, landscapes, and earth structures. To accompany G110 for non-geology majors.

G123 Art and the Earth Sciences (3 cr.) The principles of geology and the evolution of the Earth and life as revealed by art objects. Use of Earth materials in art. The influence of art history on the development of modern geologic thought. Laboratories in lithography, etching, music, morphing, and microscopy.

G130 Short Courses in Earth Science (topic varies) (1 cr.) P: None. Five-week short courses on a variety of topics in the earth sciences. Examples of topics include lunar and planetary geology; geology of Indiana; geology of national parks; glaciers; water; gemstones; geology of art; earthquakes, volcanoes; dinosaurs. Each short course is one credit; no topic may be taken for credit more than once.

G132 Environmental Problems (3 cr.) This course is offered via the Internet, and provides experience in addressing some of the kinds of problems that arise in studies of the environment. Particular attention is given to developing skills in evaluating scientific articles; specifically, the relevance of the information in an article, the credibility of the author, and the accuracy and usefulness of the quantitative information provided. The kinds of problems considered in this course will vary from semester to semester, but will be chosen from a list that includes global warming, tropical rain forests, acid rain, water pollution, solid waste disposal, appropriate use of land, and the ability of regulations to protect the environment. Three or four such topics will be covered each semester.

G135 Indiana Geology (3 cr.) An in-depth investigation of Indiana's geology, including minerals and rocks, geologic time, mineral resources, fossils, topography, soil, water resources, and special geologic features such as the Falls of the Ohio River and Indiana Dunes.

G136 Indiana Geology Field Experience (1 cr.) P or C: G107, G110, or G135. Application of geologic principles to the solution of geologic problems in field

settings. Projects on geologic topics including sedimentary rocks and fossils, soils, mineral resources, hydrology, glacial history, and karst topography. Students undertake two projects per semester and must be available on two Saturdays for field work. Preparation for field days uses a combination of television, the Web, and e-mail. Each project requires a written report.

G180 Dinosaurs (3 cr.) P: None. Fall, spring, summer. A survey of the characteristics and evolution of dinosaurs. Topics include: occurrence of dinosaur remains in the fossil record, basic anatomy, principles used in classification, types of predatory and plant-eating dinosaurs, environments occupied during life, biology and behavior, extinction theories, dinosaur hunters, and dinosaurs in the media and the public eye.

G199 Service Learning in Geology (1 cr.) P or C: G107, G110, or G115. Students participate in community service projects. Completion of the project includes a paper reflecting on how the service experience contributed to their application of the principles of general education.

G205 Reporting Skills in Geoscience (3 cr.) P: G110 and G209, and ENG W131. Spring. Techniques of presenting written and oral reports from the geoscience approach. The written report: mechanics of format and illustrations, proper citation of geoscience literature, the abstract, proofreading, and editing. The oral report: effective presentation and response to audience questions, simulating a professional science meeting.

G206 Advanced Physical Geology Laboratory (2 cr.) P or C: G110. Fall, spring. The laboratory study of minerals, rocks, topographic maps and aerial photographs, landforms and landscapes, structural geology, and geologic maps.

G209 History of the Earth (3 cr.) P: G110, G206. Fall, spring. Earth history emphasizing physical and biological evolution. Geologic time, stratigraphic correlation, plate tectonics, depositional environments, paleogeography, and evolution of life. Laboratory. Field trips.

G221 Introductory Mineralogy (3 cr.) P: G206 and CHEM C105. Fall. Crystallography: symmetry, morphology, classes. Mineral chemistry, physics, and genesis. Description, identification, association, occurrence, and use of common and important minerals.

G222 Introductory Petrology (3 cr.) P: G221 and CHEM C106. Spring. Igneous, sedimentary, and metamorphic rocks: composition, field occurrence, characteristics, classification, origin, laboratory description, and identification.

G300 Environmental and Urban Geology (3 cr.) P: G107 or G110 or consent of instructor. Significance of regional and local geologic features and geologic processes in land use planning; use of geologic data in areas of rapid urbanization to properly utilize mineral and water resources and to assess potential geologic hazards.

G303 Geologic Mapping and Field Methods (4 cr.) P: G205, G209, and G222, or consent of instructor. Fall. Brunton-compass and GPS/GIS mapping. Measuring and describing stratigraphic

sections of sedimentary rocks and surficial deposits. Mapping geologic structures. Field hydrology. Interpretation of maps, aerial photographs, and satellite imagery.

G304 Principles of Paleontology (3 cr.) P: G209 or consent of instructor. Spring. Biological principles applied to the fossil record. Examination of the quality of the fossil record, taxonomic principles and procedures, analytical techniques, evolutionary theory, evolution and paleoecology of species, populations and communities, diversification and extinction, paleogeography. Laboratories: systematics, stratigraphic distribution, and ecology of major fossilized invertebrate phyla.

G323 Structural Geology (3 cr.) P: G205, G206, G209, G222, G303. Spring. Nature and origin of primary and secondary structural features of the earth's crust, with emphasis on mechanics of deformation and origin, and three-dimensional problems illustrating structural concepts. Laboratory.

G334 Principles of Sedimentation and Stratigraphy (3 cr.) P: G205, G209, and G222. P or C: G303. Fall. Processes and factors influencing genesis of sedimentary particles and their deposition. Interpretation of depositional environments. Sedimentary facies and interpretation of stratigraphic record from outcrop, core sequence, and remote sensing. Laboratory. Field trip.

G403 Optical Mineralogy and Petrography (3 cr.) P: G205, G222. Identification of rock-forming minerals in fragments and thin sections using principles of optical crystallography and the petrographic microscope. Description of common igneous, sedimentary, and metamorphic rocks and interpretation of their genesis using hand specimens and thin sections.

G404 Geobiology (3 cr.) P: G205, G209, and G222, and BIOL K101 or BIOL K103 or BIOL N107, or consent of instructor. Principles of paleontology. Emphasis on invertebrates. Major patterns and fundamentals of biological evolution as revealed by the fossil record. Use of fossils in the study of stratigraphy and Earth's history. Laboratory exercises examine the form, ecology, and stratigraphic record of major phyla with a fossil record.

G406 Introduction to Geochemistry (3 cr.) P: G205, CHEM C106, or consent of instructor. Interactions between geology, chemistry, and biology in natural systems. Explores biogeochemical processes on small scales and in terms of global cycles, as well as human impacts on biogeochemical cycling.

G410 Undergraduate Research in Geology (1-3 cr.) P: G205, junior standing, and consent of instructor. Field and laboratory research in selected problems in geology. May be repeated. A total of 3 credit hours may be applied toward the degree.

G413 Introduction to Geophysics (3 cr.) P: G205 and consent of instructor. Applications of gravity, magnetism, seismology, electricity, and other methods of mineral exploration, engineering, and environmental investigations.

G415 Principles of Geomorphology (3 cr.) P: G205, G209, G222, and G303. P or C: G334. Natural processes that create landforms and landscapes. Physics and chemistry of weathering and soil

formation. Dynamics of mass wasting, streams, and glaciers. Includes field and laboratory investigations.

G416 Economic Geology (3 cr.) P: G205 and G222, or consent of instructor. Origin, geologic occurrence, distribution, use, and conservation of important geologic natural resources: metallic minerals; industrial minerals and rocks; coal, petroleum, natural gas, and other energy resources.

G420 Regional Geology Field Trip (1-3 cr.) P: G205 or consent of instructor. Summer. Field trip to selected regions for study of mineralogic, lithologic, stratigraphic, structural, paleontologic, geomorphologic, or other geological relationships.

G430 Principles of Hydrology (4 cr.) P: G205, G206, MATH 153, CHEM C106, PHYS P202 or PHYS 251, and introductory biology. An introduction to the hydrologic cycle reviewing processes such as precipitation, evaporation and transpiration, infiltration, runoff, streamflow and watersheds, and ground water.

G445 Applied Analytical Techniques in Geology (3 cr.) P: G221, CHEM C105-C106, and consent of instructor. Principles of advanced analytical techniques including x-ray analysis, electron beam imaging and analysis, and mass spectrometry, with applications in geosciences. Lectures on theory followed by laboratory exercises. Students will complete individual or collaborative research projects.

G451 Principles of Hydrogeology (3 cr.) P: G205 and G110, or consent of instructor. R: G334. Geologic and hydrologic factors controlling the occurrence and dynamics of ground water. Emphasis on basic physical and chemical relationships between water and geologic material.

G460 Internship in Geology (3 cr.) P: G303, G304, G323, G334. Fall, spring, summer. Industrial or similar experiences in geologically oriented employment. Projects jointly arranged, coordinated, and evaluated by faculty and industrial/governmental supervisors.

G490 Seminar in Geology (1-3 cr.) P: Junior or senior standing and consent of instructor. Readings and discussion of selected topics. May be repeated, provided different topics are studied, for a maximum of 6 credit hours.

G495 Senior Thesis in Geology (1 cr.) P: G303, G304, G323, G334, two 400-level geology courses. Capstone experience involving a research project. Written report required.

G499 Honors Research in Geology (3 cr.) P: Approval of departmental Honors Committee.

G502 Trace Element and Isotope Geochemistry (3 cr.) P: CHEM C360 or C361 or GEOL G406. Principles governing the distributions of trace elements, radioisotopes, and stable isotopes in igneous, metamorphic, or sedimentary environments and Quaternary landforms. Emphasis on applications to petrology and geochronology.

G525 Glacial Geology (3 cr.) P: G415 or consent of instructor. Formation, dynamics, and regimen of glaciers. Erosional and depositional processes and landforms. Glaciation of North America with emphasis on stratigraphy, soils, climates, and physical changes resulting from glacial processes and environments.

Field investigations and a student research project required.

G527 Geological Oceanography (3 cr.) P: Graduate standing, G334, and G413. Geological features and processes operating in the oceans; continental shelf, slope and ocean-basin geomorphology, sedimentology, structure, and composition; origin and geologic history of seawater and ocean basins.

G535 Quaternary Geology (3 cr.) P: G415 or consent of instructor. Characteristics, distribution, and origin of Pleistocene and recent deposits, stratigraphy and chronology; formation of associated landforms, landscapes, paleosols, and soils; Quaternary environments and paleoclimatic interpretation.

G545 Applied Analytical Techniques in Geology (3 cr.) P: G221, CHEM C105-C106, and consent of instructor. Principles of advanced analytical techniques including x-ray analysis, electron beam imaging and analysis, and mass spectrometry, with applications in geosciences. Lectures on theory followed by laboratory exercises. Students will complete individual or collaborative research projects.

G550 Surface-Water Hydrology (3 cr.) P: G430 or G451. In-depth analysis of surface water components of hydrologic cycle: hydrometeorology, evaporation/transpiration, rainfall-runoff relationships, open-channel flow, flood hydrology, and statistical and probabilistic methods in hydrology.

G551 Advanced Hydrogeology (3 cr.) P: G430 or G451. Advanced treatment of concepts fundamental to subsurface hydrologic processes. Applications to ground water resource development and environmental protection such as aquifer mechanics and well hydraulics, heterogeneity and anisotropy, ground water and surface water interactions, unsaturated flow, and tracer and contaminant transport.

G585 Environmental Geochemistry (3 cr.) P: G406 or consent of instructor. Aquatic and environmental geochemistry, including freshwater and marine systems, natural and human-induced changes to geochemical systems, and the geochemical record of paleoceanographic and paleoclimatic variations.

G595 Data Analysis Techniques in Geoscience (3 cr.) P: STAT 301 and CSCI 207, or equivalent. Application of statistical and numerical analysis techniques to geoscience data, including sampling methods, confidence intervals, least squares methods, correlation, time series analysis, and multivariate techniques. Emphasis on using a computer to solve geoscience problems.

G596 Topics in Applied Environmental Geology (3 cr.) P: Consent of instructor. Application of geologic principles to common environmental problems. Topics covered include waste site assessment, flood hazard analysis and mitigation, slope stability, and hydrogeology. Application of principles to problems pertaining to urban planning, earthquake-resistant design, and waste site/landfill development.

G621 Modeling Hydrological Systems (3 cr.) P: G430 or G451 and consent of instructor. Introduction to ground water flow and solute transport modeling.

Includes development of equations describing ground water flow and applied ground water/contaminant transport modeling using a variety of current software packages.

G635 Soil Geomorphology (3 cr.) P: G415.

Application of geomorphic principles in evaluation of weathering and soil formation; systems analysis of soil-landscape models; paleogeomorphology and paleopedology. Lectures and discussion; field and laboratory problems.

G640 Fluvial Geomorphology (3 cr.) P: G415 or

consent of instructor. Survey of fluvial processes including sediment transport, bed and bank erosion, and river metamorphosis. Examination of the controls on channel form. Analysis of landform genesis with an emphasis on feature sedimentology and stratigraphy. Application of fluvial geomorphic principles to land management and restoration of riparian ecosystems.

G645 Carbonate Sedimentology (3 cr.) P: G334

or consent of instructor. Spring. Course focuses on origin and generation of carbonate grains, description of modern carbonate depositional environments, interpretation of ancient limestone and dolomite sequences, and carbonate diagenesis.

G690 Advanced Geology Seminar (cr. arr.) P:

Consent of instructor.

G700 Geologic Problems (1-5 cr.) P: Consent of

instructor. Consideration of special geologic problems.

G810 Thesis Research (6 cr.)

Department of Mathematical Sciences

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Professors Abramovich, Bittinger, Bleher, Boukai (*Chairperson*), Burkinshaw, Frankel, A. Its, Kaminker, Kleyle, Kuczkowski, Misiurewicz, Ng, Penna, Sen, Wojciechowski

Professors Emeriti Alton, Crown, Hutton, Rothman

Associate Professors Geller, Ji, Klimek, Luke, Miller (*IUPUI Columbus*), Patterson, Podgorski, Rigdon (*Associate Chairperson*), Sarkar, Shen, Tam, Wang, Watt (*Associate Chairperson*)

Assistant Professors Ernst, Mukhin

Adjunct Professors Aliprantis, Reid

Lecturers Cooley, E. Its, Rangazas, Ziemian

Mathematical sciences include the areas of pure and applied mathematics, mathematics education, and statistics. Mathematics involves the study of problems in areas such as algebra, geometry, analysis, and logic, and of problems arising in the real world. Mathematics and statistics are used in the physical sciences, engineering, and the social, life, and

management sciences. Mathematics education involves the training of prospective secondary teachers.

Degree Programs

The department offers the Purdue University Bachelor of Science degree in mathematics with options in pure mathematics, applied mathematics, actuarial science, and secondary school teaching.

Purdue graduate degrees offered include the Master of Science, Master of Science (Option for Teachers), Master of Science (Concentration in Applied Statistics), and Master of Science (Concentration in Industrial and Applied Mathematics). Additionally, qualified students may be authorized to pursue the Ph.D. in mathematics in areas where a program has been arranged with Purdue, West Lafayette.

Bachelor of Science

Students are encouraged to declare a mathematics major in the freshman year so they can receive proper academic advising. A grade point average of 2.5 with no failing grades in mathematics courses through MATH 351 is a minimum indication of success in this major.

Degree Requirements

The baccalaureate degree general requirements, the area requirements, and the Bachelor of Science degree requirements are listed earlier in this bulletin (see the School of Science requirements under "Undergraduate Programs"). For a Bachelor of Science degree in mathematics, the following additional requirements and restrictions apply:

Area I No additional requirements. The second semester of English composition may be satisfied by ENG W132 (or ENG W150), ENG W231, or TCM 320.

Area II All degree options require 5 credit hours in a modern foreign language.

Area III The following apply to all degree options:

1. Mathematics courses below MATH 163 and those mathematics courses in which the student has received grades below C– do not count toward the degree.
2. Certain courses, such as CHEM C101, C102, C110; PHYS 100, 200, 218, 219, P201, P202; and AST A100 and A105 may not be used to fulfill the science requirement, Area IIIC, of the School of Science. If in doubt about a particular course, the student should consult a mathematics department advisor.
3. The Area IIID computer science requirement must be in a higher-level programming course (not BASIC). A grade of C (2.0) or better is required.

Area IV Mathematics courses in which a student has received grades below C (2.0) do not count in area IV. The Area IV requirements for the secondary area of concentration and the major for the four degree options—pure mathematics, applied mathematics, actuarial science, and secondary teaching—are described in the following sections. There is no single semester-by-semester plan of study for any of the options because flexibility is encouraged within the various programs. However, a sample

program that shows one possible sequence of courses is given for each option. Variations from the sample program should be made in consultation with the student's advisor. Because of the complexity of the requirements, and because certain courses are not offered every semester, it is important that each student consult the assigned advisor as soon as possible in order to proceed through a proper plan of study for the chosen degree program. A minimum grade point average of 2.5 is required in all mathematics courses that count toward the major.

Area IV Secondary Area of Concentration Requirements

So that each student can acquire some depth of study in a subject outside of the major area, the Department of Mathematical Sciences requires students to have a secondary area of concentration outside of the department. The secondary area of concentration consists of at least 18 credit hours and includes at least three courses beyond the introductory level. It is subject to the approval of the student's advisor. Although a secondary area of concentration is usually in one department, it may be from two or more if the advisor approves.

Courses may be used for the double purpose of fulfilling the general requirements and also for fulfilling the secondary area of concentration requirements of the Department of Mathematical Sciences. For students in the Pure Mathematics Option or the Applied Mathematics Option, a secondary area in one of the physical sciences or in a subject that makes serious use of mathematics, such as computer science, engineering, or economics, is desirable. Students in the Secondary School Teaching Option satisfy the requirements for a secondary area by the courses they take to meet the professional education requirement.

The requirement of 18 credit hours in a secondary area of concentration does not, by itself, constitute an official minor that would be acknowledged on the student's transcript. A minor must be offered through the department or school in which the minor is taken. One such minor, which is designed to be of particular interest to students choosing a career in actuarial sciences, is offered by the School of Business in conjunction with the Department of Mathematical Sciences. Students interested in the business minor for mathematics majors should contact the Department of Mathematical Sciences or the School of Business for exact requirements.

Area IV Major Requirements

PURE MATHEMATICS OPTION

With this option, students will be well prepared for graduate work in pure mathematics. However, students with undergraduate degrees in pure mathematics have also been successful with graduate studies in business administration, computer science, economics, engineering, educational research, law, medicine, operations research, psychology, statistics, and physics. Persons with advanced degrees in pure mathematics find careers primarily in college teaching, but careers in business, industry, or government service are also possible.

The Area IV major requirements are as follows:

1. Core curriculum: MATH 163, 164, 261, 262, and 351.
2. Analysis: MATH 441-442.
3. MATH 453 Beginning Abstract Algebra.
4. MATH 462 Elementary Differential Geometry *or* MATH 510 Vector Calculus.
5. 12 additional credit hours in mathematics or statistics courses at the 300 level or higher. Courses in computer science or courses in other departments of the School of Science that have an appropriate mathematical content may be selected with the approval of the advisor. Normally, no more than 6 credit hours will be approved outside of mathematics and statistics.
6. The 45 credit hours of courses required above must include at least 6 credit hours from a course sequence listed below, other than MATH 441-442.
7. 1-3 hours of MATH 490 or MATH 492 Capstone Experience.

Course Sequences

Advanced calculus: MATH 510 and 525

Algebra: MATH 453, and 505 or a higher-level algebra course

Analysis: MATH 441, and 442 or a higher-level analysis course

Geometry: MATH 462, and 561 or a higher-level geometry course

Differential equations: MATH 520, and 537 or higher-level differential equations course

Modeling: MATH 426, and 417 or a higher-level modeling course

Numerical analysis: MATH 414, and CSCI 515 or a higher-level numerical analysis course

Probability and Statistics: Two STAT courses numbered 311 or higher

Scientific computing: CSCI 475 and 476

Theoretical computer science: CSCI 340 and 470

Pure Mathematics Option Sample Program (124 cr. required)

Freshman Year

First Semester

MATH 163 Integrated Calculus and Analytic Geometry I	5
COMM R110 Fundamentals of Speech Communication	3
ENG W131 Elementary Composition I	3
SCI 120 Windows on Science	1
Physical or Biological Science with Laboratory	5
	17

Second Semester

MATH 164 Integrated Calculus and Analytic Geometry II	5
CSCI 230 Computing I	4
Second Composition Course	3
Physical or Biological Science	3
	15

Sophomore Year

Third Semester

MATH 261 Multivariate Calculus	4
HIST H114 History of Western Civilization II	3
Physical or Biological Science	3
Free Electives	6
	16

Fourth Semester

MATH 262 Linear Algebra and Differential Equations	4
MATH 351 Elementary Linear Algebra	3
Humanities—List H	3
Physical or Biological Science	3
Free Elective	3
	16

Junior Year

Fifth Semester

MATH 441 Foundations of Analysis	3
MATH or STAT Elective	3
Foreign Language	5
Social Sciences—List S	3
Free Elective	3
	17

Sixth Semester

MATH 442 Foundations of Analysis II	3
MATH 510 Vector Calculus	3
Comparative World Cultures—List C	3
Free Electives	6
	15

Senior Year

Seventh Semester

MATH 453 Beginning Abstract Algebra	3
MATH or STAT Elective	3
Junior/Senior Integrator	3
Free Electives	6
	15

Eighth Semester

MATH or STAT Electives	6
MATH 492 Capstone Experience	2
Free Electives	6
CAND 991 Candidate for Graduation	0
	14

APPLIED MATHEMATICS OPTION

Graduates with training in applied mathematics are employed in business, industry, and government. They would probably work as part of a team and would often need to communicate mathematical ideas to persons trained in other subjects. In many instances, they would need to formulate problems for solution on a computer and then interpret the answers. Thus, besides a fundamental knowledge of mathematics, a knowledge of what computers can do is essential. This option is also a good preparation for graduate study in applied mathematics, computer science, statistics, and engineering.

The Area IV major requirements are as follows:

1. Core curriculum: MATH 163, 164, 261, 262, and 351.
2. MATH 414 Numerical Methods.
3. MATH 510 Vector Calculus.
4. Mathematical modeling: MATH 417 *or* 426.
5. 15 additional credit hours in mathematics or statistics courses at the 300 level or higher. Courses in computer science or courses in other departments of the School of Science that have an appropriate mathematical content may be selected with the approval of the advisor. Normally, no more than 6 credit hours will be approved outside of mathematics and statistics.

6. The 45 credit hours of courses required above must include at least 6 credit hours in each of two of the course sequences listed below. Students planning on attending graduate school in mathematics are advised to take MATH 441-442.
7. 1-3 credit hours of MATH 490 or MATH 492 Capstone Experience.

Course Sequences

Advanced calculus: MATH 510 and 525

Algebra: MATH 453, and 505 or a higher-level algebra course

Analysis: MATH 441, and 442 or a higher-level analysis course

Differential equations: MATH 520, and 537 or a higher-level differential equations course

Geometry: MATH 462, and 561 or a higher-level geometry course

Modeling: MATH 426, and 417 or a higher-level modeling course

Numerical analysis: MATH 414, and CSCI 515 or a higher-level numerical analysis course

Probability and Statistics: Two STAT courses numbered 311 or higher

Scientific computing: CSCI 475 and 476¹

Theoretical computer science: CSCI 340 and 470¹

Applied Mathematics Option Sample Program (124 cr. required)

Freshman Year

First Semester

MATH 163 Integrated Calculus and Analytic Geometry I	5
ENG W131 Elementary Composition I	3
SCI 120 Windows on Science	1
CSCI 230 Computing I	4
HIST H114 History of Western Civilization II	3
	16

Second Semester

MATH 164 Integrated Calculus and Analytic Geometry II	5
COMM R110 Fundamentals of Speech Communication	3
Second Composition Course	3
Free Electives	6
	17

Sophomore Year

Third Semester

MATH 261 Multivariate Calculus	4
PHYS 152 Mechanics	4
Humanities—List H	3
Free Electives	6
	17

Fourth Semester

MATH 262 Linear Algebra and Differential Equations	4
MATH 351 Elementary Linear Algebra	3
PHYS 251 Heat, Electricity, and Optics	5
Free Elective	3
	15

¹ Students are generally allowed to select only one of these two course sequences.

Junior Year**Fifth Semester**

MATH 414 Numerical Methods	3
PHYS 310 Intermediate Mechanics	4
MATH or STAT Elective	3
Foreign Language	3
Social Sciences—List S	3
	<u>16</u>

Sixth Semester

MATH 426 Introduction to Applied Mathematics and Modeling or	
MATH 417 Discrete Modeling and Game Theory	3
MATH 510 Vector Calculus	3
PHYS 342 Modern Physics	3
Comparative World Cultures—List C	3
Foreign Language	3
	<u>15</u>

Senior Year**Seventh Semester**

MATH or STAT Electives	6
Junior/Senior Integrator	3
Free Electives	6
	<u>15</u>

Eighth Semester

MATH or STAT Electives	6
MATH 492 Capstone Experience	2
Free Electives	6
CAND 991 Candidate for Graduation	0
	<u>14</u>

ACTUARIAL SCIENCE OPTION

The goal of this option is to prepare students to take the first two and possibly the third actuarial exams by the end of their senior year. In addition to the core curriculum, this option requires a one-year sequence in probability and mathematical statistics, another one-year sequence in actuarial models, and a course on the mathematical theory of interest. In addition, a minor in business and economics will be required to help prepare for the second exam. (This minor will serve as the secondary area of concentration.) As this bulletin goes to print, further details are not available. Contact the Department of Mathematical Sciences for an updated plan of study.

SECONDARY SCHOOL TEACHING OPTION

Students who wish to teach in secondary schools must meet the requirements for teacher certification in the state in which they expect to teach. Interested persons can obtain these requirements by writing to the Department of Public Instruction, Certification Office, in the capital city of any state.

In order to satisfy Indiana state law, a student should have 40 credit hours in general education courses and a specified core of professional education courses as part of the requirement for a teaching license. Students should be sure to see an advisor to ensure that these hours are properly distributed and that the professional education requirements are met. The IUPUI secondary teaching program that has been approved by the state of Indiana requires the completion of at least 36 credit hours of mathematics courses.

The Area IV major requirements are as follows:

1. Core curriculum: **MATH 163**, **164**, **261**, **262**, and **351**.
2. **MATH 300** Logic and the Foundations of Algebra.
3. **MATH 453** Abstract Algebra.
4. **MATH 463** Intermediate Euclidean Geometry for Secondary Teachers.

5. Probability and statistics: **STAT 311** or **350** or **416** or **511**.
6. **MATH 583** History of Elementary Mathematics.

Secondary School Teaching Option Sample Program (124 cr. required)**Freshman Year****First Semester**

MATH 163 Integrated Calculus and Analytic Geometry I	5
ENG W131 Elementary Composition I	3
PSY B104 Psychology as a Social Science	3
HIST H114 History of Western Civilization II	3
SCI 120 Windows on Science	1
	<u>15</u>

Second Semester

MATH 164 Integrated Calculus and Analytic Geometry II	5
COMM R110 Fundamentals of Speech Communication	3
ENG W132 Elementary Composition II	3
Humanities—List H	3
	<u>14</u>

Sophomore Year**Third Semester**

MATH 261 Multivariate Calculus	4
MATH 300 Logic and the Foundations of Algebra	3
CSCI 230 Computing I	4
Physical or Biological Science with Laboratory	4
	<u>15</u>

Fourth Semester

MATH 262 Linear Algebra and Differential Equations	4
Physical or Biological Science	3
EDUC M300 Teaching in a Pluralistic Society <i>and</i>	3
EDUC K205 Intro to Special Education <i>and</i>	3
EDUC M201 Field Experience	0
EDUC P255 Educational Psychology <i>and</i>	3
EDUC M201 Field Experience	1
	<u>17</u>

Junior Year**Fifth Semester**

MATH 351 Elementary Linear Algebra	3
Physical or Biological Science	3
Foreign Language	5
MATH 424 Teaching of Math in Middle School and Junior High School <i>and</i>	
Math 425 Teaching Math in Secondary School	
(<i>or</i> EDUC M457)	5
	<u>16</u>

Sixth Semester

STAT 511 Statistical Methods	3
EDUC M464 Methods of Teaching Reading	3
Physical or Biological Science	3
MATH 463 Intermediate Euclidean Geometry for Secondary Teachers	3
Junior/Senior Integrator	3
	<u>15</u>

Senior Year**Seventh Semester**

MATH 453 Abstract Algebra	3
EDUC H340 Education and American Culture	3
EDUC M314 General Methods for Senior High/Junior High/Middle School Teachers <i>and</i>	
EDUC M301 Field Experience	3
Comparative World Cultures—List C	3
Free Elective	3
	<u>15</u>

Eighth Semester

EDUC M470 Practicum	6
EDUC M480 Student Teaching: Secondary	10
MATH 583 History of Mathematics	3
CAND 991 Candidate for Graduation	0
	<u>19</u>

Minor in the Mathematical Sciences

An undergraduate minor in mathematics would be useful in many fields. A scientist or engineer may need a knowledge of differential equations and linear algebra, while someone in business or a social science may need a background in probability or statistics.

Requirements

1. The calculus sequence **MATH 163**, **164**, and **261** (14 cr.).
2. Two additional courses selected from mathematics courses numbered 262 or higher or from statistics courses numbered 311 or higher.
3. 9 credit hours of the minor must be completed at IUPUI.
4. The grade in each course submitted for the minor must be C (2.0) or higher.

Correspondence courses may not be used to fulfill requirements for the minor.

Graduate Programs

The Department of Mathematical Sciences offers graduate training leading to the Purdue University Master of Science degree. Qualified students may be authorized to pursue the Ph.D. in mathematics at IUPUI in areas where a program has been arranged with Purdue, West Lafayette. The M.S. degree requires two years of graduate study, and the Ph.D. degree typically requires two to three additional years of study.

Admission Requirements

Students entering a graduate program in mathematics should have completed an undergraduate program containing as many courses as possible in abstract algebra, linear algebra, advanced calculus, differential equations, logic and foundations, and probability.

Students entering the graduate program in applied mathematics or the graduate program in industrial and applied mathematics should have completed an undergraduate program in mathematics or an undergraduate program in engineering or physical sciences that was strongly oriented toward mathematics.

Students entering the master's program in applied statistics must have a bachelor's degree from an accredited institution. The minimal mathematics requirement for admission to this program includes an undergraduate sequence in univariate and multivariate calculus (equivalent to **MATH 163**, **164**, **261**) and one mathematics course beyond the calculus level. Prospective applicants who do not have this background must take all or part of the calculus sequence prior to admission to the program.

Applicants who lack a course beyond the calculus sequence must complete such a course as soon as possible after conditional admission.

Application for Admission

Students who wish to pursue an advanced degree in the Department of Mathematical Sciences should fill

out a graduate student application form. Applicants are encouraged to submit GRE scores in mathematics. Foreign students for whom English is not their native language and who have not completed a bachelor's or master's degree program from an English-speaking university must submit TOEFL scores. While this application is being processed, the student may enter IUPUI as a temporary graduate student. No more than 12 hours of credit earned under this classification may be applied toward an advanced degree. Those who do not want to pursue an advanced degree, but who desire to take graduate courses for personal improvement, may also take courses under the temporary graduate student classification.

Transfer Credit

The Department of Mathematical Sciences will accept by transfer a maximum of 9 hours of graduate credit, in excess of undergraduate degree requirements, from approved institutions.

Assistantships and Fellowships

Financial support is available to qualified students in the form of University Fellowships, graduate teaching assistantships, and tuition scholarships. Additional summer support is available through summer teaching for students whose performance in course work and assistantship duties is satisfactory.

English Requirements

All advanced degree candidates are required to demonstrate acceptable proficiency in English composition.

Foreign students for whom English is not their native language and who have not completed a bachelor's or master's degree program from an English-speaking university must take the ESL exam administered by the IUPUI English as a Second Language Program. Students not scoring sufficiently high will be required to take designated courses in English while pursuing their graduate studies.

Master of Science

A minimum of 30 credit hours of course work is required for an M.S. degree. Course grades must be A or B with the possible exception of at most two grades of C. Neither a thesis nor a comprehensive examination is required. Several core courses are specific to an M.S. plan of study and vary according to the student's interest in (a) pure mathematics with a Ph.D. objective, (b) pure mathematics without a Ph.D. objective, (c) applied mathematics with a Ph.D. objective, or (d) applied mathematics without a Ph.D. objective. The remaining courses are selected by the student and his or her advisory committee.

Master of Science (Option for Teachers)

This nonthesis program requires a minimum of 30 credit hours of course work and is tailored for secondary school teachers and students who are preparing to become secondary school teachers. Core requirements include a course in geometry, a course in algebra, a course in analysis, a course in modeling/differential equations, and a course in probability. (See the Department of Mathematical Sciences for a more complete description of this program.) Course grades must be A or B with the possible exception of at most two grades of C.

Master of Science (Concentration in Industrial and Applied Mathematics)

The Master of Science degree with a concentration in Industrial and Applied Mathematics consists of a minimum of 30 credit hours. Course grades must be A or B with the possible exception of at most two grades of C. Candidates for this degree may choose a thesis option, a nonthesis option or an industrial internship option. The nonthesis option requires 18 credit hours in the core curriculum and 12 credit hours in elective courses. The core curriculum consists of two courses in each of the following areas: applied mathematical methods, applied computational methods, and mathematical modeling of physical systems. The elective courses should preferably be in an area of application outside mathematics, unless otherwise approved by the faculty advisor. Both the thesis and the industrial internship option require 18 credit hours in the core curriculum and 6 credit hours in elective courses; the remaining 6 credit hours involve the thesis or the industrial internship work.

Master of Science (Concentration in Applied Statistics)

The Master of Science degree with a concentration in applied statistics consists of a minimum of 30 credit hours. Course grades must be A or B with the possible exception of at most two grades of C. Candidates for this degree may choose either the thesis option or the nonthesis option. Both options require 15 credit hours in the core curriculum consisting of STAT 512, 514, 519, 524, and 528. The two-course sequence in probability and mathematical statistics (STAT 519, 528) must be taken by all degree candidates. A combined written and oral final examination is required.

The nonthesis option consists of 15 credit hours beyond the core curriculum, at least 9 of which must be statistics (STAT) courses. The remaining courses may be taken in mathematics or in areas relevant to statistical applications, subject to approval of the academic advisor.

The thesis option requires a thesis worth 6 credit hours on a topic approved by the candidate's academic advisor. At least 6 of the remaining 9 credit hours must be taken in statistics or in a subject related to statistical applications that has been approved by the advisor. An oral defense of the thesis is required.

Doctor of Philosophy

Qualified students may be authorized to pursue the Ph.D. in mathematics at IUPUI in areas where a program has been arranged with Purdue, West Lafayette. To be admitted to candidacy for the Ph.D. degree, the student must have fulfilled the following requirements and must have been accepted by the graduate committee of the Department of Mathematical Sciences.

Requirements

1. The student must satisfy, by one of the five options approved by the graduate school, the foreign language requirement in German, Russian, or French.

2. The student must pass qualifying examinations in four subject areas: abstract algebra, real analysis, and two additional areas chosen by the student from a list of approved areas. A student may attempt any particular qualifier examination up to three times, but there are time limits imposed by the department for passing all four examinations.
3. The student must submit to the graduate school through the department a plan of study including at least 42 credit hours of approved graduate course work.
4. The student must pass advanced topics examinations. These oral or written examinations may be taken only by students who have completed requirement 2.

A candidate will be recommended to the faculty to receive the Ph.D. degree after a thesis, submitted in final form, has been accepted by the advisory committee and presented before an open colloquium or seminar.

The department has set time limits for completion of the Ph.D. degree.

Courses in Mathematical Sciences (MATH)

Note: Statistics courses (STAT) follow MATH listings. P—prerequisite; C—corequisite; R—recommended; Fall—offered fall semester; Spring—offered spring semester; Summer—offered in the summer session. For courses with no designated semester, consult the *Schedule of Classes*. Equiv.—course is equivalent to the indicated course taught at Indiana University Bloomington, or the indicated course taught at Purdue University, West Lafayette.

Special Developmental Courses

M010 Pre-Algebra (3 cr.) Fall, spring, summer. Covers the required material for preparation for algebra courses. Whole numbers, fractions, decimals, percents, square roots, measurement, and rational numbers. Credit does not apply toward any degree.

001 Introduction to Algebra (4 cr.) P: M010 (minimum grade of C-) or placement. Fall, spring, summer. Covers the material in the first year of high school algebra. Numbers and algebra, integers, rational numbers, equations, polynomials, graphs, systems of equations, inequalities, radicals. Credit does not apply toward any degree.

002 Geometry (3 cr.) P or C: 001 or equivalent. This course is intended to provide one unit of geometry as a first encounter or as a review for those students with little or no geometry background and needing this prerequisite to pursue higher-level course work. Covers plane and solid geometry, right triangle trigonometry, and mathematical logic through a structure focused on problem-solving and critical thinking skills.

Undergraduate Level

Lower-Division Courses

110 Fundamentals of Algebra (4 cr.) P: 001 (minimum grade of C-) or placement. Intended primarily for liberal arts and business majors.

Integers, rational and real numbers, exponents, decimals, polynomials, equations, word problems, factoring, roots and radicals, logarithms, quadratic equations, graphing, linear equations in more than one variable, and inequalities. This course satisfies the prerequisites needed for M118, M119, 130, and STAT 301.

111 Algebra (4 cr.) P: 001 (minimum grade of C) or placement. Fall, spring, summer. Real numbers, linear equations and inequalities, systems of equations, polynomials, exponents, logarithmic functions. Covers material in the second year of high school algebra.

M118 Finite Mathematics¹ (3 cr.) P: 111 or 110 (minimum grade of C-) or equivalent. Fall, spring, summer. Set theory, logic, permutations, combinations, simple probability, conditional probability, Markov chains. An honors option is available in this course.

M119 Brief Survey of Calculus I (3 cr.) P: 111 or 110 (minimum grade of C-) or equivalent. Fall, spring, summer. Sets, limits, derivatives, integrals, and applications. An honors option is available in this course.

123 Elementary Concepts of Mathematics (3 cr.) P: None. Mathematics for liberal arts students; experiments and activities that provide an introduction to inductive and deductive reasoning, number sequences, functions and curves, probability, statistics, topology, metric measurement, and computers.

130 Mathematics for Elementary Teachers I¹ (3 cr.) P: 111 or 110 (minimum grade of C-) or equivalent; one year of high school geometry. Fall, spring, summer. Numeration systems, mathematical reasoning, integers, rationals, reals, properties of number systems, decimal and fractional notations, problem solving.

132 Mathematics for Elementary Teachers II¹ (3 cr.) P: 130. Fall, spring, summer. Rationals, reals, geometric relationships, properties of geometric figures, one-, two-, and three-dimensional measurement and problem solving.

136 Mathematics for Elementary Teachers¹ (6 cr.) P: 111 or 110 (minimum grade of C) or equivalent; one year of high school geometry. Fall, spring, summer. 136 is a one-semester version of 130 and 132. Not open to students with credit in 130 or 132.

151 Algebra and Trigonometry (5 cr.) P: 111 (minimum grade of B) or placement. Fall, spring, summer I. 151 is a one-semester version of 153-154. Not open to students with credit in 153 or 154. 151 covers college-level algebra and trigonometry and provides preparation for 163 and 164.

153 Algebra and Trigonometry I (3 cr.) P: 111 (minimum grade of C) or two years of high school algebra. Fall, spring, summer. 153-154 is a two-semester version of 151. Not open to students with credit in 151. 153 covers college-level algebra and provides preparation for 163 and 221.

154 Algebra and Trigonometry II (3 cr.) P: 153 (minimum grade of C) or five semesters of high school algebra. Fall, spring, summer. 153-154 is a two-semester version of 151. Not open to students with credit in 151. 154 covers college-level trigonometry and provides preparation for 163 and 221.

163 Integrated Calculus and Analytic Geometry I (5 cr.) P: 151 or 154 (minimum grade of C) or equivalent, and one year of geometry. Equiv. IU MATH M211. Fall, spring, summer I. Review of plane analytic geometry and trigonometry, functions, limits, differentiation, applications of differentiation, integration, the fundamental theorem of calculus, and applications of integration. An honors option is available in this course.

164 Integrated Calculus and Analytic Geometry II (5 cr.) P: 163 (minimum grade of C-) or equivalent. Equiv. IU MATH M212. Fall, spring, summer I. Transcendental functions, techniques of integration, indeterminate forms and improper integrals, conics, polar coordinates, sequences, infinite series, and power series. An honors option is available in this course.

179 Computers and Mathematics (3 cr.) P: 163. Exploration of some modern mathematical concepts, using the computer as an experimental tool. Possible topics include iteration, fixed points, convergence, stability/instability, chaos, fractals. Function approximation: polynomials, splines, computer graphics. Calculus: numerical approximations, symbolic manipulations. Arithmetic with large integers: prime numbers, factorization, encryption, unsolved problems in number theory.

190 Topics in Applied Mathematics for Freshmen (3 cr.) Treats applied topics in mathematics at the freshman level. Prerequisites and course material vary with the applications.

221 Calculus for Technology I (3 cr.) P: 151 or 154 (minimum grade of C-) or equivalent, and one year of geometry. Fall, spring, summer. Analytic geometry, the derivative and applications, the integral and applications.

222 Calculus for Technology II (3 cr.) P: 221 (minimum grade of C-). Fall, spring, summer. Differentiation of transcendental functions, methods of integration, power series, Fourier series, differential equations.

261 Multivariate Calculus (4 cr.) P: 164. Equiv. IU MATH M311. Fall, spring, summer. Spatial analytic geometry, vectors, curvilinear motion, curvature, partial differentiation, multiple integration, line integrals, Green's theorem. An honors option is available in this course.

262 Linear Algebra and Differential Equations (4 cr.) P: 164. R: 261. Fall, spring, summer. First-order equations, higher-order linear equations, initial and boundary value problems, power series solutions, systems of first-order equations, Laplace transforms, applications. Requisite topics of linear algebra: vector spaces, linear independence, matrices, eigenvalues, and eigenvectors.

290 Topics in Applied Mathematics for Sophomores (3 cr.) Treats applied topics in

mathematics at the sophomore level. Prerequisites and course material vary with the applications.

Upper-Division Courses

300 Logic and the Foundations of Algebra (3 cr.) P: 163. Fall. Logic and the rules of reasoning, theorem proving. Applications to the study of the integers; rational, real, and complex numbers; and polynomials. Bridges the gap between elementary and advanced courses. Recommended for prospective high school teachers.

351 Elementary Linear Algebra (3 cr.) P: 261. Not open to students with credit in 511. Fall, spring. Systems of linear equations, matrices, vector spaces, linear transformations, determinants, inner product spaces, eigenvalues, applications.

375 Theory of Interest (3 cr.) P: 261. An introduction to the theory of finance including such topics as compound interest, annuities certain, amortization schedules, sinking funds, bonds, and related securities.

390 Topics in Applied Mathematics for Juniors (3 cr.) Treats applied topics in mathematics at the junior level. Prerequisites and course material vary with the applications.

414 Numerical Methods (CSCI 414) (3 cr.) P: 262 and a course in a high-level programming language. Not open to students with credit in CSCI 512. Error analysis, solution of nonlinear equations, direct and iterative methods for solving linear systems, approximation of functions, numerical differentiation and integration, numerical solution of ordinary differential equations.

417 Discrete Modeling and Game Theory (3 cr.) P: 262 and 351 or 511 or consent of instructor. Linear programming; mathematical modeling of problems in economics, management, urban administration, and the behavioral sciences.

424 The Teaching of Mathematics in Middle and Junior High Schools (2 cr.) Designed to prepare the prospective teacher to plan, present, and evaluate mathematics lessons, determine goals, manage instruction, and use a variety of instructional strategies.

425 The Teaching of Mathematics in Secondary Schools (2-3 cr.) Designed to prepare the prospective teacher to plan, present, and evaluate mathematics lessons, determine goals, manage instruction, and use a variety of instructional strategies.

426 Introduction to Applied Mathematics and Modeling (3 cr.) P: 262 and PHYS 152. Introduction to problems and methods in applied mathematics and modeling. Formulation of models for phenomena in science and engineering, their solution, and physical interpretation of results. Examples chosen from solid and fluid mechanics, mechanical systems, diffusion phenomena, traffic flow, and biological processes.

441 Foundations of Analysis (3 cr.) P: 261. Set theory, mathematical induction, real numbers, completeness axiom, open and closed sets in \mathbb{R}^n , sequences, limits, continuity and uniform continuity, inverse functions, differentiation of functions of one and several variables.

¹The sequence MATH M118, 130, 132 or MATH M118, 136 fulfills the mathematics requirement for elementary education majors.

442 Foundations of Analysis II (3 cr.) P: 441. Continuation of differentiation, the mean value theorem and applications, the inverse and implicit function theorems, the Riemann integral, the fundamental theorem of calculus, point-wise and uniform convergence, convergence of infinite series, series of functions.

453 Beginning Abstract Algebra (3 cr.) P: 351 or consent of the instructor. Basic properties of groups, rings, and fields, with special emphasis on polynomial rings.

456 Introduction to the Theory of Numbers (3 cr.) P: 261. Divisibility, congruences, quadratic residues, Diophantine equations, the sequence of primes.

462 Elementary Differential Geometry (3 cr.) P: 351. Calculus and linear algebra applied to the study of curves and surfaces. Curvature and torsion, Frenet-Serret apparatus and theorem, fundamental theorem of curves. Transformation of R^2 , first and second fundamental forms of surfaces, geodesics, parallel translation, isometries, fundamental theorem of surfaces.

463 Intermediate Euclidean Geometry for Secondary Teachers (3 cr.) P: 002 (or one year of high school geometry), and 300, or consent of instructor. History of geometry. Ruler and compass constructions, and a critique of Euclid. The axiomatic method, models, and incidence geometry. Presentation, discussion and comparison of Hilbert's, Birkhoff's, and SMSG's axiomatic developments.

490 Topics in Mathematics for Undergraduates (1-5 cr.) By arrangement. Open to students only with the consent of the department. Supervised reading and reports in various fields.

S490 Senior Seminar (3 cr.)

491 Seminar in Competitive Math Problem-Solving (1-3 cr.) Approval of the director of undergraduate programs is required. This seminar is designed to prepare students for various national and regional mathematics contests and examinations such as the Putnam Mathematical Competition, the Indiana College Mathematical Competition and the Mathematical Contest in Modeling (MCM), among others. May be repeated twice for credit.

492 Capstone Experience (1-3 cr.) By arrangement.

495 TA Instruction (0 cr.) For teaching assistants. Intended to help prepare TAs to teach by giving them the opportunity to present elementary topics in a classroom setting under the supervision of an experienced teacher who critiques the presentations.

Undergraduate and Graduate Level

504 Real Analysis (3 cr.) P: 441 or consent of the instructor. Completeness of the real number system, basic topological properties, compactness, sequences and series, absolute convergence of series, rearrangement of series, properties of continuous functions, the Riemann-Stieltjes integral, sequences and series of functions, uniform convergence, the Stone-Weierstrass theorem, equicontinuity, the Arzela-Ascoli theorem.

505 Intermediate Abstract Algebra (3 cr.) P: 453 or consent of the instructor. Group theory with emphasis on concrete examples and applications. Field theory: ruler and compass constructions, Galois theory, solvability of equations by radicals.

510 Vector Calculus (3 cr.) P: 261. Calculus of functions of several variables and of vector fields in orthogonal coordinate systems. Optimization problems, implicit function theorem, Green's theorem, Stokes' theorem, divergence theorems, applications to engineering and the physical sciences.

511 Linear Algebra with Applications (3 cr.) P: 261. Not open to students with credit in 351. Matrices, rank and inverse of a matrix, decomposition theorems, eigenvectors, unitary and similarity transformations on matrices.

519 Introduction to Probability (STAT 519) (3 cr.) P: 262. See STAT 519.

520 Boundary Value Problems of Differential Equations (3 cr.) P: 261 and 262. Sturm-Liouville theory, singular boundary conditions, orthogonal expansions, separation of variables in partial differential equations, spherical harmonics.

522 Qualitative Theory of Differential Equations (3 cr.) P: 262 and 351. Laplace transforms, systems of linear and nonlinear ordinary differential equations, brief introduction to stability theory, approximation methods, other topics.

523 Introduction to Partial Differential Equations (3 cr.) P: 262 and 510, or consent of instructor. Method of characteristics for quasilinear first-order equations; complete integral; Cauchy-Kowalewsky theory; classification of second-order equations in two variables; canonical forms; difference methods of hyperbolic and parabolic equations; Poisson integral method for elliptic equations.

525 Introduction to Complex Analysis (3 cr.) P: 261 and 262. Complex numbers and complex-valued functions; differentiation of complex functions; power series, uniform convergence; integration, contour integrals; elementary conformal mapping.

526 Principles of Mathematical Modeling (3 cr.) P: 262 and 510, or consent of instructor. Ordinary and partial differential equations of physical problems, simplification, dimensional analysis, scaling, regular and singular perturbation theory, variational formulation of physical problems, continuum mechanics, and fluid flow.

527 Advanced Mathematics for Engineering And Physics I (3 cr.) P: 262. R: 511. Linear algebra, systems of ordinary differential equations, Laplace transforms, Fourier series and transforms, and partial differential equations.

528 Advanced Mathematics for Engineering and Physics II (3 cr.) P: 262. R: 510. Divergence theorem, Stokes' Theorem, complex variables, contour integration, calculus of residues and applications, conformal mapping, and potential theory.

530 Functions of a Complex Variable I (3 cr.) P or C: 544. Complex numbers, holomorphic functions, harmonic functions, linear transformations. Power series, elementary functions, Riemann surfaces, contour integration, Cauchy's theorem, Taylor and Laurent series, residues. Maximum and argument principles. Special topics.

531 Functions of a Complex Variable II (3 cr.) P: 530. Compactness and convergence in the space of analytic functions, Riemann mapping theorem, Weierstrass factorization theorem, Runge's theorem, Mittag-Leffler theorem, analytic continuation and Riemann surfaces, Picard theorems.

532 Elements of Stochastic Processes (STAT 532) (3 cr.) P: 519. See STAT 532.

535 Theoretical Mechanics (3 cr.) P: 262 and PHYS 152. Kinematics and dynamics of systems of particles and of rigid bodies; Lagrange and Hamilton-Jacobi equations; oscillations about equilibrium; Hamiltonian systems; integral invariants; transformation theory.

536 Perturbation and Asymptotic Analysis (3 cr.) P: 525 or 530, and 523. Matched asymptotic expansions, inner and outer expansions, strained coordinates and multiple scales, turning point analysis.

537 Applied Mathematics for Scientists and Engineers I (3 cr.) P: 261, 262, and consent of instructor. Covers theories, techniques, and applications of partial differential equations, Fourier transforms, and Laplace transforms. Overall emphasis is on applications to physical problems.

544 Real Analysis and Measure Theory (3 cr.) P: 441 or consent of instructor. Algebras of sets, real number system, Lebesgue measure, measurable functions, Lebesgue integration, differentiation, absolute continuity, Banach spaces, metric spaces, general measure and integration theory, Riesz representation theorem.

545 Principles of Analysis II (3 cr.) P: 544. Continues the study of measure theory begun in 544.

546 Introduction to Functional Analysis (3 cr.) P: 545. By arrangement. Banach spaces, Hahn-Banach theorem, uniform boundedness principle, closed graph theorem, open mapping theorem, weak topology, Hilbert spaces.

547 Analysis for Teachers I (3 cr.) P: 261. Set theory, logic, relations, functions, Cauchy's inequality, metric spaces, neighborhoods, Cauchy sequence.

548 Analysis for Teachers II (3 cr.) P: 547. Functions on a metric space, continuity, uniform continuity, derivative, chain rule, Riemann integral, fundamental theorem of calculus, double integrals.

549 Applied Mathematics for Secondary School Teachers (3 cr.) P: 262 and 351. Summer, odd-numbered years. Applications of mathematics to problems in the physical sciences, social sciences, and the arts. Content varies. May be repeated for credit with the consent of the instructor.

550 Algebra for Teachers I (3 cr.) P: 351. Definitions and elementary properties of groups, rings, integral domains, fields. Intended for secondary school teachers.

551 Algebra for Teachers II (3 cr.) P: 550. Polynomial rings, fields, vector spaces, matrices.

552 Applied Computational Methods II (3 cr.) P: 559 and consent of instructor. The first part of the course focuses on numerical integration techniques and methods for ODEs. The second part concentrates on numerical methods for PDEs based on finite difference techniques with brief surveys of finite element and spectral methods.

553 Introduction to Abstract Algebra (3 cr.) P: 453 or consent of instructor. Group theory: finite abelian groups, symmetric groups, Sylow theorems, solvable groups, Jordan-Hölder theorem. Ring theory: prime and maximal ideals, unique factorization rings, principal ideal domains, Euclidean rings, factorization in polynomial and Euclidean rings. Field theory: finite fields, Galois theory, solvability by radicals.

554 Linear Algebra (3 cr.) P: 351. Review of basics: vector spaces, dimension, linear maps, matrices, determinants, linear equations. Bilinear forms; inner product spaces; spectral theory; eigenvalues. Modules over principal ideal domain; finitely generated abelian groups; Jordan and rational canonical forms for a linear transformation.

559 Applied Computational Methods I (3 cr.) P: 262 and 351 or 511. Computer arithmetic, interpolation methods, methods for nonlinear equations, methods for solving linear systems, special methods for special matrices, linear least square methods, methods for computing eigenvalues, iterative methods for linear systems; methods for systems of nonlinear equations.

561 Projective Geometry (3 cr.) P: 351. Projective invariants, Desargues' theorem, cross-ratio, axiomatic foundation, duality, consistency, independence, coordinates, conics.

562 Introduction to Differential Geometry and Topology (3 cr.) P: 351 and 442. Smooth manifolds, tangent vectors, inverse and implicit function theorems, submanifolds, vector fields, integral curves, differential forms, the exterior derivative, DeRham cohomology groups, surfaces in E^3 , Gaussian curvature, two-dimensional Riemannian geometry, Gauss-Bonnet and Poincaré theorems on vector fields.

563 Advanced Geometry (3 cr.) P: 300 or consent of instructor. Topics in Euclidean and non-Euclidean geometry.

571 Elementary Topology (3 cr.) P: 441. Topological spaces, metric spaces, continuity, compactness, connectedness, separation axioms, nets, function spaces.

572 Introduction to Algebraic Topology (3 cr.) P: 571. Singular homology theory, Eilenberg-Steenrod axioms, simplicial and cell complexes, elementary homotopy theory, Lefschetz fixed point theorem.

578 Mathematical Modeling of Physical Systems I (3 cr.) P: 262, PHYS 152 and 251 and consent of Instructor. Linear systems modeling, mass-spring-damper systems, free and forced vibrations, applications to automobile suspension, accelerometer, seismograph, etc., RLC circuits, passive and active filters, applications to crossover

networks and equalizers, nonlinear systems, stability and bifurcation, dynamics of a nonlinear pendulum, van der Pol oscillator, chemical reactor, etc., introduction to chaotic dynamics, identifying chaos, chaos suppression and control, computer simulations and laboratory experiments.

581 Introduction to Logic for Teachers (3 cr.) P: 351. Not open to students with credit in 385. Logical connectives, rules of sentential inference, quantifiers, bound and free variables, rules of inference, interpretations and validity, theorems in group theory, introduction to set theory.

583 History of Elementary Mathematics (3 cr.) P: 261. A survey and treatment of the content of major developments of mathematics through the eighteenth century, with selected topics from more recent mathematics, including non-Euclidean geometry and the axiomatic method.

585 Mathematical Logic I (CSCI 585) (3 cr.) P: 351. Formal theories for propositional and predicate calculus with study of models, completeness, compactness. Formalization of elementary number theory; Turing machines, halting problem, and the undecidability of arithmetic.

587 General Set Theory (3 cr.) P: 351. Informal axiomatization of set theory, cardinal numbers, countable sets, cardinal arithmetic, order types, well-ordered sets and ordinal numbers, axiom of choice and equivalences, paradoxes of intuitive set theory, Zermelo-Fraenkel axioms.

588 Mathematical Modeling of Physical Systems II (3 cr.) P: 578. Depending on the interests of the students, the content may vary from year to year. Emphasis will be on mathematical modeling of a variety of physical systems. Topics will be chosen from the volumes "Mathematics in Industrial Problems" by Avner Friedman. Researchers from local industries will be invited to present real-world applications. Each student will undertake a project in consultation with one of the instructors or an industrial researcher.

598 Topics in Mathematics (1-5 cr.) By arrangement. Directed study and reports for students who wish to undertake individual reading and study on approved topics.

Graduate Level

611 Methods of Applied Mathematics I (3 cr.) P: Consent of Instructor. Introduction to Banach and Hilbert spaces, linear integral equations with Hilbert-Schmidt kernels, eigenfunction expansions, and Fourier transforms.

612 Methods of Applied Mathematics II (3 cr.) P: 611. Continuation of theory of linear integral equations; Sturm-Liouville and Weyl theory for second-order differential operators, distributions in n dimensions, and Fourier transforms.

626 Mathematical Formulation of Physical Problems I (3 cr.) P: Graduate standing and consent of instructor. Topics to be chosen from the following: Tensor formulation of the field equations in continuum mechanics, fluid dynamics, hydrodynamic stability, wave propagation, and theoretical mechanics.

627 Mathematical Formulation of Physical Problems II (3 cr.) P: 626. Continuation of 626.

642 Methods of Linear and Nonlinear Partial Differential Equations I (3 cr.) P: 520, 523, and 611. Topics from linear and nonlinear partial differential equations, varied from time to time.

646 Functional Analysis (3 cr.) P: 546. Advanced topics in functional analysis, varying from year to year at the discretion of the instructor.

672 Algebraic Topology I (3 cr.) P: 572. Continuation of 572; cohomology, homotopy groups, fibrations, further topics.

673 Algebraic Topology II (3 cr.) P: 672. Sequel to 672 covering further advanced topics in algebraic and differential topology such as K-theory and characteristic classes.

692 Topics in Applied Mathematics (1-3 cr.)

693 Topics in Analysis (1-3 cr.)

694 Topics in Differential Equations (1-3 cr.)

697 Topics in Topology (1-3 cr.)

699 Research Ph.D. Thesis (cr. arr.)

Courses in Statistics (STAT)

Undergraduate Level

Upper-Division Courses

STAT 301 Elementary Statistical Methods I (3 cr.) P: MATH 111 or 110 or equivalent. Not open to students in the Department of Mathematical Sciences. Fall, spring. Introduction to statistical methods with applications to diverse fields. Emphasis on understanding and interpreting standard techniques. Data analysis for one and several variables, design of samples and experiments, basic probability, sampling distributions, confidence intervals and significance tests for means and proportions, correlation and regression. Software is used throughout.

STAT 302 Elementary Statistical Methods II (3 cr.) P: 301 or equivalent. Continuation of 301. Multiple regression and analysis of variance, with emphasis on statistical inference and applications to various fields.

STAT 311 Introductory Probability (3 cr.) P: MATH 261 or equivalent. Not open to students with credit in 416. Fall. Fundamental axioms and laws of probability; finite sample spaces and combinatorial probability; conditional probability; Bayes theorem; independence; discrete and continuous random variables; univariate and bivariate distributions; binomial, negative binomial, Poisson, normal, and gamma probability models; mathematical expectation; moments and moment generating functions.

STAT 350 Introduction to Statistics (3 cr.) P: MATH 163 or equivalent. Fall, spring. A data-oriented introduction to the fundamental concepts and methods of applied statistics. STAT 350 is intended primarily for majors in the mathematical sciences (mathematics, actuarial sciences, mathematics

education). The objective is to acquaint the students with the essential ideas and methods of statistical analysis for data in simple settings. It covers material similar to that of STAT 511 but with emphasis on more data-analytic material. Includes a weekly computing laboratory using Minitab.

STAT 416 Probability (3 cr.) P: MATH 261 or equivalent. Not open to students with credit in 311. Fall, spring. An introduction to mathematical probability suitable as preparation for actuarial science, statistical theory, and mathematical modeling. General probability rules, conditional probability, Bayes theorem, discrete and continuous random variables, moments and moment generating functions, continuous distributions and their properties, law of large numbers, and central limit theorem.

STAT 417 Statistical Theory (3 cr.) P: 416. R: 350 or equivalent. Spring. An introduction to the mathematical theory of statistical inference, emphasizing inference for standard parametric families of distributions. Properties of estimators. Bayes and maximum likelihood estimation. Sufficient statistics. Properties of test of hypotheses. Most powerful and likelihood-ratio tests. Distribution theory for common statistics based on normal distributions.

STAT 490 Topics in Statistics for Undergraduates (1-5 cr.) Supervised reading and reports in various fields.

Undergraduate and Graduate Level

STAT 511 Statistical Methods I (3 cr.) P: MATH 164. Descriptive statistics; elementary probability; random variables and their distributions; expectation; normal, binomial, Poisson, and hypergeometric distributions; sampling distributions; estimation and testing of hypotheses; one-way analysis of variance; correlation and regression.

STAT 512 Applied Regression Analysis (3 cr.) P: STAT 511. Inference in simple and multiple linear regression, estimation of model parameters, testing and prediction. Residual analysis, diagnostics and remedial measures. Multicollinearity. Model building, stepwise and other model selection methods. Weighted least squares. Nonlinear regression. Models with qualitative independent variables. One-way analysis of variance. Orthogonal contrasts and multiple comparison tests. Use of existing statistical computing package.

STAT 513 Statistical Quality Control (3 cr.) P: 511. Control charts and acceptance sampling, standard acceptance plans, continuous sampling plans, sequential analysis, and response surface analysis. Use of existing statistical computing packages.

STAT 514 Designs of Experiments (3 cr.) P: 512. Fundamentals, completely randomized design, randomized complete blocks. Latin squares, multiclassification, factorial, nested factorial, incomplete blocks, fractional replications, confounding, general mixed factorial, split-plot and optimum design. Use of existing statistical computing packages.

STAT 515 Statistical Consulting Problems (1-3 cr.) P: Consent of advisor. Consultation on real-world problems involving statistical analysis under the guidance of a faculty member. A detailed written report and an oral presentation are required.

STAT 516 Basic Probability and Applications (3 cr.) P: MATH 261 or equivalent. A first course in probability intended to serve as a foundation for statistics and other applications. Intuitive background; sample spaces and random variables; joint, conditional, and marginal distributions; special distributions of statistical importance; moments and moment generating functions; statement and application of limit theorems; introduction to Markov chains.

STAT 517 Statistical Inference (3 cr.) P: 511 or 516. A basic course in statistical theory covering standard statistical methods and their applications. Includes unbiased, maximum likelihood, and moment estimation; confidence intervals and regions; testing hypotheses for standard distributions and contingency tables; introduction to nonparametric tests and linear regression.

STAT 519 Probability Theory (3 cr.) P: MATH 261 or equivalent. Sample spaces and axioms of probability, conditional probability, independence, random variables, distribution functions, moment generating and characteristic functions, special discrete and continuous distributions — univariate and multivariate cases, normal multivariate distributions, distribution of functions of random variables, modes of convergence and limit theorems including laws of large numbers and central limit theorem.

STAT 520 Time Series and Applications (3 cr.) P: 519. A first course in stationary time series with applications in engineering, economics, and physical sciences. Stationarity, autocovariance function and spectrum; integral representation of a stationary time series and interpretation; linear filtering; transfer function models; estimation of spectrum; multivariate time series. Use of existing statistical computing packages.

STAT 521 Statistical Computing (3 cr.) C: STAT 512 or equivalent. A broad range of topics involving the use of computers in statistical methods. Collection and organization of data for statistical analysis; transferring data between statistical applications and computing platforms; techniques in exploratory data analysis; comparison of statistical packages.

STAT 522 Sampling and Survey Techniques (3 cr.) P: 512 or equivalent. Survey designs; simple random, stratified, and systematic samples; systems of sampling; methods of estimation; ratio and regression estimates; costs. Other related topics as time permits.

STAT 523 Categorical Data Analysis (3 cr.) P: 528 or equivalent, or consent of instructor. Models generating binary and categorical response data, two-way classification tables, measures of association and agreement, goodness-of-fit tests, testing independence, large sample properties. General linear models, logistic regression, probit and extreme value models. Loglinear models in two and higher dimensions; maximum likelihood estimation, testing

goodness-of-fit, partitioning chi-square, models for ordinal data. Model building, selection, and diagnostics. Other related topics as time permits. Computer applications using existing statistical software.

STAT 524 Applied Multivariate Analysis (3 cr.) P: 528 or equivalent, or consent of instructor.

Extension of univariate tests in normal populations to the multivariate case, equality of covariance matrices, multivariate analysis of variance, discriminant analysis and misclassification errors, canonical correlation, principal components, factor analysis. Strong emphasis on the use of existing computer programs.

STAT 525 Intermediate Statistical Methodology (3 cr.) C: 528 or equivalent, or consent of instructor. Generalized linear models, likelihood methods for data analysis, diagnostic methods for assessing model assumptions. Methods covered include multiple regression, analysis of variance for completely randomized designs, binary and categorical response models, and hierarchical loglinear models for contingency tables.

STAT 528 Mathematical Statistics (3 cr.) P: STAT 519 or equivalent. Sufficiency and completeness, the exponential family of distributions, theory of point estimation, Cramer-Rao inequality, Rao-Blackwell Theorem with applications, maximum likelihood estimation, asymptotic distributions of ML estimators, hypothesis testing, Neyman-Pearson Lemma, UMP tests, generalized likelihood ratio test, asymptotic distribution of the GLR test, sequential probability ratio test.

STAT 529 Applied Decision Theory and Bayesian Analysis (3 cr.) C: STAT 528 or equivalent. Foundation of statistical analysis, Bayesian and decision theoretic formulation of problems; construction of utility functions and quantifications of prior information; methods of Bayesian decision and inference, with applications; empirical Bayes; combination of evidence; game theory and minimax rules, Bayesian design and sequential analysis. Comparison of statistical paradigms.

STAT 532 Elements of Stochastic Processes (MATH 532) (3 cr.) P: 519 or equivalent. A basic course in stochastic models including discrete and continuous time processes, Markov chains, and Brownian motion. Introduction to topics such as Gaussian processes, queues and renewal processes, and Poisson processes. Application to economic models, epidemic models, and reliability problems.

STAT 533 Nonparametric Statistics (3 cr.) P: 516 or equivalent. Binomial test for dichotomous data, confidence intervals for proportions, order statistics, one-sample signed Wilcoxon rank test, two-sample Wilcoxon test, two-sample rank tests for dispersion, Kruskal-Wallis test for one-way layout. Runs test and Kendall test for independence, one- and two-sample Kolmogorov-Smirnov tests, nonparametric regression.

STAT 536 Introduction to Survival Analysis (3 cr.) P: 517 or equivalent. Deals with the modern statistical methods for analyzing time-to-event data. Background theory is provided, but the emphasis is on the applications and the interpretations of results. Provides coverage of survivorship functions and

censoring patterns; parametric models and likelihood methods, special life-time distributions; nonparametric inference, life-tables, estimation of cumulative hazard functions, the Kaplan-Meier estimator; one- and two-sample nonparametric tests for censored data; and semiparametric proportional hazards regression (Cox Regression), parameters' estimation, stratification, model fitting strategies, and model interpretations. Heavy use of statistical software such as Splus and SAS.

STAT 598 Topics in Statistical Methods (1-3 cr.)

P: Consent of instructor. Directed study and reports for students who wish to undertake individual reading and study on approved topics.

STAT 698 Research M.S. Thesis (6 cr.) P: Consent of advisor. M.S. thesis in applied statistics.

Department of Physics

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Professor Emeritus Kaplan, Meiere, Novak, Paik, Seubert

Associate Professors Gavrin, Kleinhans, Ou, Thatcher, Vemuri, Wassall

Assistant Professor Decca

Departmental Academic Advisors Gavrin and Vasavada

Physics is the study of matter and energy, from the smallest scale, as in the study of elementary particles, to the largest, as in the study of the formation and evolution of stars and galaxies. In this sense, physics is the science that underlies all of the other sciences. In principle, as well as in practice, physics is involved in virtually all scientific and technical endeavors (e.g., biophysics, geophysics, health physics, etc.).

Physicists tend to view themselves primarily as solvers of problems, especially problems that can be expressed in mathematical terms. Physics students are trained to solve complex problems by learning to analyze complex relations in mathematical terms, often with the help of today's fast computers. Because of this broadly based and flexible problem-solving background, physics graduates find employment in a variety of fields, many of which are not directly associated with physics.

The Department of Physics offers a program leading to a Bachelor of Science degree from Purdue University. In addition, the department offers courses in physics and astronomy for non-majors. The department also offers graduate courses that lead to a Purdue Master of Science degree. Qualified students may be authorized to pursue the Ph.D. degree in physics at IUPUI in areas where a program has been arranged with Purdue, West Lafayette.

Members of the department conduct research in several disciplines of physics and participate in joint projects with a number of other research groups, such as the Indianapolis Center for Advanced Research and the IU School of Medicine. Student participation in these projects is welcomed and encouraged.

Students majoring in physics consolidate their undergraduate studies by putting what they have learned to use in a capstone experience in one of the department's research laboratories. Each student joins a member of the faculty in a project that provides experience in a professional setting. The student must obtain the approval of a faculty member and register for Physics 490.

Guide to Service Courses

Each student should consult an advisor in the department in which a degree is sought to determine which service course is appropriate. A general guide to the schools served by these courses is as follows:

AST 100-105: General science courses for students in all majors.

AST 130: Focused short courses for students in all majors.

PHYS 140: Focused short courses for students in all majors.

PHYS 100: For students in allied health, business, and liberal arts (a traditional survey course).

PHYS 200: For students in education, SPEA, and liberal arts (a nontraditional course).

PHYS 218-219: A noncalculus sequence for technology students.

PHYS P201-P202: A noncalculus sequence for preprofessional students.

PHYS 152-251-342: For students in science and engineering requiring a calculus-based sequence.

Bachelor of Science

Areas I, II, III Minimum requirements for the School of Science are given in this bulletin (see the School of Science requirements under "Undergraduate Programs"). The second semester of English composition may be satisfied only with ENG W132 (or ENG W150), W231, W250, W290, W331, W350, or TCM 320. The Department of Physics has the following additional requirements:

Area IIIC Physical and Biological Sciences

Courses must include CHEM C105/C125 and C106/C126 with laboratory or their approved equivalent.

Area IIID Mathematical Sciences 24 credit hours of courses in mathematics, which must include MATH 163, 164, 261, and 262 or equivalent, plus 6 more credit hours approved by the Department of Physics. The computer science requirement of the School of Science may be satisfied with CSCI 230, N305, N331, or any higher-level CSCI course.

Area IV Physics Concentration A concentration program in physics must include PHYS 152, 251, 300, 310, 330, 342, 342L, 353, 400, 401, 416, 442, and 490.

Courses taken outside the Schools of Science and Liberal Arts must receive departmental approval. No more than 6 credit hours of clinical, athletic, or

performing arts courses will be approved. See the departmental advisor for details.

The Department of Physics recommends the following sample program leading to the degree of Bachelor of Science.

Bachelor of Science (124 cr. required)

Freshman Year

First Semester

CHEM C105/C125 Principles of Chemistry I	5
ENG W131 Elementary Composition I	3
MATH 163 Integrated Calculus and Analytic Geometry I	5
SCI 120 Windows on Science	1
	<hr/> 14

Second Semester

PHYS 152 Mechanics	4
CHEM C106/C126 Principles of Chemistry II	5
MATH 164 Integrated Calculus and Analytic Geometry II	5
Second Composition Course	3
	<hr/> 17

Sophomore Year

Third Semester

PHYS 251 Heat, Electricity, and Optics	5
MATH 261 Multivariate Calculus	4
HIST H114 History of Western Civilization II	3
CSCI Course	3
	<hr/> 15

Fourth Semester

PHYS 300 Introduction to Elementary Mathematical Physics	3
PHYS 342 Modern Physics	3
PHYS 342L Modern Physics Laboratory	1
COMM R110 Fundamentals of Speech Communication	3
MATH 262 Linear Algebra and Differential Equations	4
One Course from the H, S, or C List	3
	<hr/> 17

Junior Year

Fifth Semester

PHYS 310 Intermediate Mechanics	4
One Course from Remaining Two H, S, or C Lists	3
One Course from Remaining H, S, or C Lists	3
MATH Course	3
Elective	3
	<hr/> 16

Sixth Semester

PHYS 330 Intermediate Electricity and Magnetism	3
PHYS 353 Electronics Laboratory	2
MATH Course	3
Physical or Biological Science	3
Junior/Senior Integrator	3
Elective	3
	<hr/> 17

Senior Year

Seventh Semester

PHYS 400 Physical Optics	3
PHYS 401 Physical Optics Laboratory	2
PHYS 442 Quantum Mechanics	3
Physical or Biological Science	3
Elective	3
	<hr/> 14

Eighth Semester

PHYS 416 Thermal Physics	3
PHYS 490 Undergraduate Research and Capstone Experience	1-3
Elective	8-10
CAND 991 Candidate for Graduation	0
	<hr/> 14

Teaching Option:

For the middle/secondary school teaching option, the Department of Physics may substitute other science courses for the 400-level courses and recommend education courses in order to meet teacher certification requirements.

Minor in Physics

The Department of Physics offers an undergraduate minor in physics with the following requirements:

- The introductory physics sequence: PHYS 152 and 251.
- Modern Physics and Modern Physics lab: PHYS 342 and 342L.
- 6 more credit hours chosen from PHYS 300, 310, 330, 400, 416, or 442.
- The grade for each course submitted for the minor must be a C (2.0) or higher.

Correspondence courses may not be used to fulfill requirements for the minor.

Graduate Programs

The Department of Physics offers graduate programs leading to Purdue University Master of Science and Doctor of Philosophy degrees. For master's degree students, both thesis and nonthesis options are available.

Admission Requirements

Students who seek to enroll in the physics graduate program should have a baccalaureate degree from an accredited institution and have a background in the usual undergraduate courses in physics, mathematics, and other sciences. A grade point average of 3.0 (B) or better in physics courses is expected. Graduates from related fields of study in pure and applied science or engineering may be accepted on a probationary basis until they have completed any necessary undergraduate courses in physics. The Graduate Record Examination (GRE) is normally expected of all applicants. The GRE physics test is recommended, but not required.

Transfer Credit

The Department of Physics will normally accept, from approved institutions, a maximum of 6 transfer hours of graduate credit that are in excess of undergraduate degree requirements.

Application for Admission

Application materials and information can be obtained by writing to the chairperson of the graduate committee; Department of Physics; Science Building; 402 N. Blackford Street; IUPUI; Indianapolis, IN 46202-3273; telephone (317) 274-6900. While the application is being processed, it is possible to enter IUPUI as a temporary graduate student. Generally only 12 hours of credit earned under this classification may be counted toward an advanced degree.

Financial Assistance

Most physics graduate students receive financial support. Types of support available include teaching and research assistantships, fellowships, and tuition remission.

Master of Science

The general requirements include admission to regular graduate status, completion of the English requirement, a passing score on the Physics Qualifying Examination, satisfactory completion of an approved plan of study, and 30 hours of graduate credit as outlined below.

The English requirement for candidates whose native language is English is satisfied by having no undergraduate grades below B in English composition or by scoring 600 or higher on the Verbal Aptitude Section of the Graduate Record Examination. Students who do not satisfy the English requirement by either of the above methods may take a written examination administered by the Department of English to demonstrate their proficiency. Students whose native language is not English must pass the TOEFL examination with a grade of 550 or better and take a diagnostic test when they arrive at IUPUI. The score on this test will determine what English courses are required.

The Physics Qualifying Examination is administered throughout the Purdue graduate system and must be taken, at the latest, after completing the introductory graduate courses. Two attempts are permitted to obtain a passing grade.

The student's plan of study is worked out in cooperation with the student's graduate advisor and committee. It must be submitted and accepted by the graduate school no later than the semester before the one in which the student plans to graduate. The English requirement must be satisfied before the plan of study may be filed.

The master's degree requires the satisfactory completion of 30 credit hours of course work at the 500 and 600 level. Twenty-four credit hours must be in physics and biophysics, including one laboratory course. In the thesis option, 6 of the physics credit hours will be earned by enrolling in PHYS 698 Research M.S. Thesis. This option requires a written thesis. In the nonthesis option, 6 of the physics credit hours will typically be earned through enrollment in PHYS 590 Reading and Research. This option requires a written report. Six credit hours must be in mathematics, which may be replaced in part by PHYS 600 Methods of Theoretical Physics. The grade requirements are A or B in 500-level courses; A, B, or C in 600-level courses; A, B, or C in mathematics courses; and a minimum grade point average of 2.8.

Doctor of Philosophy

Qualified students may be authorized to pursue the Ph.D. degree at IUPUI in areas where a program has been arranged with Purdue, West Lafayette. Students are usually expected to complete an M.S. degree before pursuing the Ph.D. degree. Interested students should contact the Department of Physics for further details.

Research Interests and Facilities

The department's major research strengths and facilities are in the area of biological physics and magnetic resonance, in experimental and theoretical laser physics and quantum optics, and in experimental materials physics. The physics faculty directs use of four magnetic resonance spectrometers in two locations. In addition, the school has a high performance absorption spectrometer equipped to examine cryogenic samples, as well as other instrumentation for biophysical research. Current experimental research includes EPR and NMR investigations of cells, enzymes, proteins, and model membranes. Theoretical work involves calculations and computer simulations of magnetic resonance lineshapes, studies of the biophysics of photosynthesis, and theoretical condensed matter physics. The optics labs are equipped with argon ion, titanium sapphire, diode, and helium-neon lasers, in addition to state-of-the-art equipment, including digital oscilloscopes and spectrum analyzers, which allow students and faculty to probe fundamental issues in laser noise and the quantum nature of light. The materials lab includes an advanced magnetron sputter deposition system, and systems for the measurement of magnetic and electronic properties of thin film materials. All students have access to the IUPUI computing facilities, which include dedicated Unix machines, as well as the minicomputers in the department. Several ongoing projects involve collaborations with the IU School of Medicine, Methodist Hospital of Indiana, and other departments in the School of Science.

Courses in Physics (PHYS)

The courses in this section are not listed in strict numerical order; courses are grouped according to levels of difficulty.

Note: P—prerequisite; C—corequisite; Fall—offered fall semester; Spring—offered spring semester; Summer—offered in the summer session; Day—offered as a daytime section; Night—offered as an evening section; Equiv.—course is equivalent to the indicated course taught at Indiana University Bloomington, or the indicated course taught at Purdue University, West Lafayette.

Undergraduate Level

010 Pre-Physics (3 cr.) P: MATH 151, or MATH 153 and 154, or equivalent. Fall, spring. For students not ready to take the algebra- and trigonometry-based courses in physics (218 and P201). Basic concepts of physics. Methods of analyzing physics problems. Setting up equations for physics problems. Interpreting information in physics problems. Analyzing and presenting the results of laboratory measurements. Extensive drill in these topics.

100 Physics in the Modern World (5 cr.) P: Introductory high school mathematics. Spring, day. Ideas, language, methods, and impact of physics today.

140 Short Courses in Physics (1 cr.) Five-week short courses on a variety of topics related to the physical world. Examples of topics include: Waves and Particles are the Same Thing, Relativity, Quarks and Other Inhabitants of the Zoo, Why Things Work and

Why They Don't, Lasers and Holography, Physics of Star Trek.

200 Our Physical Environment (3 cr.) P: None. Fall, night; Spring, night. A nonmathematical introduction to physical concepts and methods by means of examples from daily life and current technological applications.

218 General Physics (4 cr.) P: MATH 151 or equivalent. Fall, night; Spring, night; Summer, day. Newtonian mechanics, wave motion, heat, and thermodynamics for students in technology fields.

219 General Physics (4 cr.) P: 218. Fall, night; Spring, night; Summer, day. Electricity, light, and modern physics.

P201 General Physics I (5 cr.) P: MATH 151 or equivalent. Fall, day; Spring, night; Summer, day. Newtonian mechanics, wave motion, heat, and thermodynamics. Application of physical principles to related scientific disciplines, especially life sciences. Intended for students preparing for careers in the life sciences and the health professions. Three lectures, one discussion section, and one two-hour laboratory period each week.

P202 General Physics II (5 cr.) P: P201. Fall, night; Spring, day; Summer, day. Electricity and magnetism; geometrical and physical optics; introduction to concepts of relativity, quantum theory, atomic and nuclear physics. Three lectures, one discussion section, and one two-hour laboratory period each week.

152 Mechanics (4 cr.) P or C: MATH 164. Equiv. IU PHYS P221. Fall, day; Spring, day, night; Summer, day. Statics, uniform and accelerated motion; Newton's laws; circular motion; energy, momentum, and conservation principles; dynamics of rotation; gravitation and planetary motion; properties of matter; simple harmonic and wave motion. For more information, visit our World Wide Web page at webphysics.iupui.edu/introphysics.

251 Heat, Electricity, and Optics (5 cr.) P: either P201 or 152. P or C MATH 261. Equiv. IU PHYS P222. Fall, day, night; spring, day; summer, day. Heat, kinetic theory, elementary thermodynamics, heat transfer. Electrostatics, electrical currents and devices. Magnetism and electromagnetic radiation. Optics. For more information, visit our Web page at webphysics.iupui.edu/introphysics.

299 Introduction to Computational Physics (2 cr.) P: 152. Fall. Application of computational techniques to physical concepts. Topics include Mechanics, Oscillations, Chaos, Random processes, etc.

300 Introduction to Elementary Mathematical Physics (3 cr.) P: either P202 or 251 and MATH 261. Spring. Brief but practical introduction to various mathematical methods used in intermediate-level physics courses. Vector analysis, orthogonal coordinate systems, matrices, Fourier methods, complex numbers, special functions, and computational methods. Emphasis will be on worked examples and the application of these methods to physics problems.

310 Intermediate Mechanics (4 cr.) P: either P202 or 251 and either 300 or MATH 262. Fall. For students familiar with calculus. Elements of vector algebra; statics of particles and rigid bodies; theory of couples; principle of virtual work; kinematics;

dynamics of particles and rigid bodies; work, power, and energy; elements of hydromechanics and elasticity.

330 Intermediate Electricity and Magnetism (3 cr.) P: either P202 or 251 and either 300 or MATH 262. Spring. Electrostatics; electric currents; magnetostatics; electromagnetic induction; Maxwell's equations; electromagnetic waves.

342 Modern Physics (3 cr.) P: either P202 or 251 and MATH 261. Equiv. IU PHYS P301. Spring. A survey of basic concepts and phenomena in atomic, nuclear, and solid state physics.

342L Modern Physics Laboratory (1 cr.) Laboratory experiments to accompany 342.

353 Electronics Laboratory (2 cr.) P: 251. Spring. Introduction to electronic circuits and test equipment for scientists. Circuits including LRC networks, diodes, transistors, amplifiers, and digital components will be constructed and measured using oscilloscopes, function generators, and digital multimeters. Results will be analyzed in terms of basic circuit properties such as impedance and frequency response.

400 Physical Optics (3 cr.) P: 330. Fall. Electromagnetic waves; wave theory of reflection, refraction, diffraction, and interference. Spatial and temporal coherence. Fourier optics, coherent imaging, and holography. Polarization phenomena; Jones vectors and matrices.

401 Physical Optics Laboratory (2 cr.) P: 330. C: 400 (majors). Experiments to accompany PHYS 400 in reflection, refraction, and interference using lasers. Interferometry. Diffraction patterns with emphasis on Fourier analysis and Fourier transformations. Polarization, Brewster's angle. Coherence length of lasers.

416 Thermal Physics (3 cr.) P: 342 and either 310 or 330. Spring. Temperature, equations of state, first and second laws of thermodynamics, entropy and applications, kinetic theory, transport processes, statistical mechanics.

442 Quantum Mechanics (3 cr.) P: 342 and either 310 or 330. Fall. Inadequacies of classical physics; wave packets and Schrödinger equation, one-dimensional problems; operator formulation of quantum mechanics; linear harmonic oscillator; angular momentum; hydrogen atom; Pauli principle and application to helium atom.

470 Reading in Special Topics (1-3 cr.)

480 Solar Energy Usage (3 cr.) P: MATH 164 or equivalent, and two terms of general physics. Theoretical and practical aspects including collector design, modeling of solar systems, economic evaluation of solar alternatives, and photovoltaics.

490 Undergraduate Reading and Research (1-3 cr.) Independent study for undergraduates.

Undergraduate and Graduate Level

501 Physical Science (3 cr.) P: None. Fall, spring. Survey of the physical sciences with emphasis on methods of presentation appropriate to the elementary school. Graduate credit is extended only for elementary school teacher programs.

510 Physical Mechanics (3 cr.) P: 310 or equivalent, and courses in calculus and differential equations. Mechanics of particles, rigid bodies, and vibrating systems.

515 Thermodynamics (3 cr.) P: 310 and 330 and a course in differential equations or advanced calculus. Equilibrium states, the concept of heat, and the laws of thermodynamics; the existence and properties of the entropy; different thermodynamic potentials and their uses; phase diagrams; introduction of statistical mechanics and its relation to thermodynamics; treatment of ideal gases.

517 Statistical Physics (3 cr.) P: 342, 510, and 515 or equivalent. Laws of thermodynamics; Boltzmann and quantum statistical distributions, with applications to properties of gases, specific heats of solids, paramagnetism, black-body radiation, and Bose-Einstein condensation; Boltzmann transport equation and transport properties of gases; Brownian motion and fluctuation phenomena.

520 Mathematical Physics (3 cr.) P: 310, 322, 330, or consent of instructor. Vectors and vector operators, tensors, infinite series, analytic functions and the calculus of residues, partial differential equations, special functions of mathematical physics. When interests and preparation of students permit, calculus of variations and/or group theory are covered.

522 Coherent Optics and Quantum Electronics (3 cr.) P: 330, 442, and 550, or ME 587. Recent experimental and theoretical developments in optics emphasizing concepts of coherence. Fourier optics and the quantum theory of radiation. Applications to lasers and masers, nonlinear optics, holography, and quantum electronics.

530 Electricity and Magnetism (3 cr.) P: 330 or equivalent. Electrostatic problems; theory of dielectrics; theory of electric conduction; electromagnetic effects due to steady and changing currents; magnetic properties of matter; Maxwell's equations; electromagnetic radiation.

533 Principles of Magnetic Resonance (3 cr.) P: 550 or equivalent. Magnetic resonance in bulk matter; classical and quantum descriptions, relaxation, CW and pulse experiments, interactions and Hamiltonians. Magnetic interactions between electrons and nuclei; nuclear quadrupole interaction, crystal field interactions, effect of molecular motion. High resolution NMR spectra; EPR of free-radical solutions; powder patterns.

545 Solid-State Physics (3 cr.) P: Any undergraduate course in modern physics. Crystal structure; lattice vibrations; free electron theory of solids; band theory of solids; semiconductors; superconductivity; magnetism; magnetic resonance.

550 Introduction to Quantum Mechanics (3 cr.) P: 342 and at least one other junior-level course in each of mathematics and physics or equivalent. Brief historical survey; waves in classical physics; wavepackets; uncertainty principle; operators and wave functions; Schrödinger equation and application to one-dimensional problems; the hydrogen atom; electron spin; multielectron atoms; periodic table; molecules; periodic potentials; Bloch wave functions.

556 Introductory Nuclear Physics (3 cr.) P: 550 or equivalent. Theory of relativity; brief survey of systematics of nuclei and elementary particles; structure of stable nuclei; radioactivity; interaction of nuclear radiation with matter; nuclear reactions; particle accelerators; nuclear instruments; fission; nuclear reactors.

570 Selected Topics in Physics (3 cr.) Specialized topics in physics selected from time to time.

590 Reading and Research (1-3 cr.)

593 Advanced Physics Laboratory (3 cr.)

Graduate Level

600 Methods of Theoretical Physics (3 cr.) P: Graduate standing in physics or consent of instructor. 600 is designed to provide first-year physics graduate students with the mathematical background for subsequent studies of advanced mechanics, electrodynamics, and quantum theory. Topics include functions of a complex variable, ordinary and partial differential equations, eigenvalue problems, and orthogonal functions. Green's functions, matrix theory, and tensor analysis in three and four dimensions.

601 Methods of Theoretical Physics II (3 cr.) P: 600 or equivalent. A continuation of 600.

610 Advanced Theoretical Mechanics (3 cr.) P: 510 or equivalent. Lagrangian and Hamiltonian mechanics; variational principles; canonical transformations; Hamilton-Jacobi theory; theory of small oscillations; Lagrangian formulation for continuous systems and field.

617 Statistical Mechanics (3 cr.) P: 660 or equivalent. Classical and quantum statistical mechanics.

630 Advanced Theory of Electricity and Magnetism (3 cr.) P: 530 and 600, or equivalent. The experimental origins of Maxwell's equations. Electrostatics and magnetostatics; solution of boundary value problems. Quasi-static currents. Electromagnetic energy and momentum and the Maxwell stress tensor. Foundations of optics. Radiation from antennas, multipole expansion; waveguides.

631 Advanced Theory of Electricity and Magnetism (3 cr.) P: 630 or equivalent. Covariant formulation of electrodynamics; Lienard-Wiechert potentials; radiation from accelerated particles; Cerenkov radiation; dynamics of relativistic particles; radiation damping; introduction to magnetohydrodynamics.

633 Advanced Topics in Magnetic Resonance (3 cr.) P: 533 or consent of instructor. Rotation operators, coupling of angular momenta, Wigner-Eckhart theorem, density matrix; theory of magnetic resonance, relaxation in liquids, chemical exchange, double resonance, cross-polarization, magic angle spinning; two-dimensional NMR, correlation spectroscopy, exchange and NOE spectroscopies; application to biological macromolecules; time domain EPR; lineshape under slow motion.

660 Quantum Mechanics I (3 cr.) P: 530, 550, 600, and 610, or equivalent. Origins of the quantum theory, the uncertainty and complementarity principles. The Schrödinger equation and its solutions for simple physical systems. Mathematical formulation of the quantum theory. Applications: simple harmonic oscillator, theory of angular momentum, hydrogen atom. Time-independent and time-dependent perturbation theory. The Pauli exclusion principle. Spin of the electron. Elementary theory of scattering.

661 Quantum Mechanics II (3 cr.) P: 601, 630, and 660, or equivalent. Symmetry and conservation

laws. The Klein-Gordon and Dirac equations. Interaction of radiation with matter. Applications of quantum mechanics to atomic structure. Scattering theory.

670 Selected Topics in Physics (1-3 cr.) P: Consent of instructor. Specialized topics in physics, varied from time to time.

685 Physics Seminar (0-1 cr.) Offered on Pass/Fail basis only. May be repeated for credit. Weekly physics seminar presented by faculty and invited speakers from outside the department.

698 Research M.S. Thesis (cr. arr.)

699 Research. (cr. arr.) Ph.D. thesis.

Courses in Astronomy (AST)

The Department of Physics has academic, advising, and administrative responsibility for the courses in astronomy offered at IUPUI.

AST A100 The Solar System (3 cr.) P: None. Fall. Survey of the solar system, including the Earth, sun, moon, eclipses, planets and their satellites, comets, laws of planetary motion, etc. Discussion of the origin of the solar system, life on earth, and the possibilities of extraterrestrial life. Also astronomical instruments and celestial coordinates.

AST A105 Stars and Galaxies (3 cr.) P: None. Spring. Survey of the universe beyond the solar system, including stars, pulsars, black holes, principles of spectroscopy and the H-R diagram, nebulae, the Milky Way, other galaxies, quasars, expanding universe, cosmology, and extraterrestrial life.

A130 Short Courses in Astronomy (1 cr.) Five-week short courses on a variety of topics in astronomy. Examples of topics include: The Big Bang, Black Holes, Astronomy From Your Back Yard, How to See Stars, The Birth and Death of Our Sun.

Department of Psychology

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Professors Appleby, Bond (*Chancellor's Professor*), Bringle, Fetterman (*Chairperson*), Goodlett, Kremer, Murphy, Rajecski, Tzeng

Professors Emeriti Davis, Hanford

Associate Professors Borden, Evenbeck, Fastenau, Felsten (IUPUI Columbus), Hazer, Johnson, June, Lauer, McGrew, Neal-Beliveau, Rytting (IUPUI Columbus), Svanum, Ware, Williams

Associate Professors Emeriti Fleener, Fortier, Goldberg

Assistant Professors Bigatti, Devine, Evans

Lecturer Kroupa

Adjunct Professors Alexy, Austin, Besing, Cofresi, Combs, Feinberg, Grahame, Haskins, Jackson,

Lysaker, Mermis, Metzner, Shain, Sharp, Trexler, Tomusk, Wagner, Zimet

Psychology is the study of behavior. Psychologists apply the scientific method to increase their understanding of human and animal behavior. Behavior is enormously diverse, and psychologists seek answers to a range of questions that are as varied as how eyes perceive light and form, how children develop a sense of morality, and under what conditions people help in emergencies. As an applied profession, psychologists use research results to solve personal and social problems.

Because the subject matter of psychology is broad, psychologists have become specialized. Specialization allows each psychologist to apply the general principles of science and behavior to a given area of interest. These include motivation and learning, child and adult development, social behavior of humans and animals, personality, thought processes, consumer behavior, and many more. Psychologists who function as applied professionals specialize in areas that include clinical, counseling, health care, rehabilitation, and industrial psychology.

The IUPUI Department of Psychology provides a varied undergraduate curriculum that leads to either the Bachelor of Arts or the Bachelor of Science degree in psychology from Purdue University. Graduate programs include Master of Science degrees in two specialty areas of psychology— industrial/organizational and clinical rehabilitation—and Doctor of Philosophy degrees in clinical rehabilitation psychology and psychobiology of addictions. Besides this professional and preprofessional training, the department serves the needs of students in many other fields by providing introductory and advanced courses in psychology. Students in the undergraduate program can choose to focus broadly on various aspects of psychology, or they can elect to concentrate on more specialized areas in which graduate training is offered.

The choice of a particular program for majors should be made in consultation with one of the academic advisors. Contact the Psychology Advising Office (LD 123, 274-6765) to schedule an appointment with an academic advisor. The course Orientation to a Major in Psychology (PSY B103) is recommended for students currently exploring psychology as a potential major. The department strongly recommends that undergraduate majors become involved with the Psychology Club or the honorary society, Psi Chi.

The Department of Psychology also offers several opportunities for students to gain research experience with faculty. Two courses entitled Readings and Research (B292 Fr/So and B492 Jr/Sr) offer students the opportunity to earn 1-3 credits for successfully participating in a research project under the direction of a faculty mentor. The SPUR (Supporting Psychology Undergraduate Research) program is available for students who have maintained a GPA of 3.2 or higher, and who have successfully completed B305 (Statistics) and B311 (Introductory Laboratory in Psychology). Eligible students must apply to the program and interview with potential faculty mentors. Students who are accepted into the program will enroll in Capstone Individual Research (B497) and

complete an independent year-long research project. Finally, the department offers Capstone Honors Research credit (B499) for students who complete an honors thesis under the direction of a faculty mentor. Both Capstone Individual Research (B497) and Capstone Honors Research (B499) fulfill the departmental capstone requirement, as described below. For a more detailed description of departmental research programs, please review the Psychology Department Web page (www.psynt.iupui.edu) or consult with an academic advisor.

Bachelor of Arts

Degree Requirements

The School of Science requirements for a Bachelor of Arts degree are listed in this bulletin (see the School of Science requirements under “Undergraduate Programs”).

Area I See the School of Science requirements under “Undergraduate Programs” in this bulletin. The second semester of English composition may be satisfied with ENG W132 (or ENG W150) or ENG W231.

Area II A first-year proficiency in a modern foreign language is required. See the School of Science requirements under “Undergraduate Programs” for details.

Area IIIA See the School of Science requirements under “Undergraduate Programs” in this bulletin. Note that courses taken from the S (Social Sciences) list cannot be psychology courses.

Area IIIB One course from a list of Junior/Senior Integrator courses is required for this area (see academic advisor for details). The Junior/Senior Integrator is designed to integrate the areas of humanities, social sciences, and science. Prerequisites: at least junior standing, ENG W131, a second composition course applicable to Area I, one course applicable to Area IIIC, one course applicable to Area IIID, HIST H114, and two courses taken from two of the H, S, and C lists.

Area IIIC and IIID See the School of Science requirements under “Undergraduate Programs” in this bulletin. The computer requirement may be satisfied with any computer science course *except* CSCI N100-level courses or CSCI N241. CSCI N207 Data Analysis Using Spreadsheets is recommended.

Area IV See the following section, “Major in Psychology (B.A. or B.S.).”

Bachelor of Science

Degree Requirements (all except Behavioral Neuroscience Track)

The School of Science requirements for a Bachelor of Science degree are listed in this bulletin under “Undergraduate Programs.”

Area I See the School of Science requirements under “Undergraduate Programs” in this bulletin. The second semester of English composition may be satisfied with ENG W132 (or ENG W150) or ENG W231.

Area II No foreign language is required.

Area IIIA See the School of Science requirements under “Undergraduate Programs” in this bulletin. Note that courses taken from the S (Social Sciences) list cannot be psychology courses.

Area IIIB One course from a list of Junior/Senior Integrator courses is required for this area (see academic advisor for details). The Junior/Senior Integrator is designed to integrate the areas of humanities, social sciences, and science. Prerequisites: at least junior standing, ENG W131, a second composition course applicable to Area I, one course applicable to Area IIIC, one course applicable to Area IIID, HIST H114, and two courses taken from two of the H, S, and C lists.

Area IIIC and IIID See the School of Science requirements under “Undergraduate Programs” in this bulletin. Two of the required four courses must be biology and/or chemistry courses. Recommended course sequences are CHEM C101-C110, or CHEM C105-C106, or BIOL N212-213 and N214-215. Courses in astronomy (AST A100, AST A105) are not acceptable. The computer requirement may be satisfied with any computer science course *except* CSCI N100-level courses or CSCI N241. CSCI N207 Data Analysis Using Spreadsheets is recommended.

Area IV See the following section, “Major in Psychology (B.A. or B.S.).”

Bachelor of Science (Behavioral Neuroscience Track)

Degree Requirements

Area I See the School of Science requirements under “Undergraduate Programs” in this bulletin. The second semester of English composition may be satisfied with ENG W132 (or ENG 150) or ENG W231.

Area II No foreign language is required.

Area IIIA See School of Science requirements under “Undergraduate Programs” in this bulletin. Note that courses taken from the S (Social Sciences) list cannot be psychology courses.

Area IIIB One course from a list of Junior/Senior Integrator courses is required for this area (see academic advisor for details). The Junior/Senior Integrator is designed to integrate the areas of humanities, social sciences, and science. Prerequisites: at least junior standing, ENG W131, a second composition course applicable to Area I, one course applicable to Area IIIC, one course applicable to Area IIID, HIST H114, and two courses taken from two of the H, S, and C lists.

Area IIIC Physical and Biological Sciences

BIOL K101, BIOL K103, BIOL K322, CHEM C105, CHEM C125, CHEM C106, CHEM C126

Area IIID Mathematical and Computer Sciences

MATH M118 and MATH M119, or MATH 153 and 154. CSCI N207 is recommended

Area IV Psychology See the following section, “Major in Psychology.” Students must take B320, B398, and either B394 or B396, and either B497 or B499.

Major in Psychology (B.A. or B.S.)

The Department of Psychology at IUPUI has a program for majors that requires 40 credit hours of selected course work. Students pursuing a B.S. degree must select a Capstone Lab, Capstone Independent Research (PSY B497), or Capstone Honors Research (PSY B499) as the capstone course (see below). Students are encouraged to consult with an academic advisor for determination of whether to pursue a B.A. or a B.S. degree.

Introductory Psychology

(Three courses; 7 credit hours)

B103
B104
B105

Research Methods

(Two courses; 6 credit hours)

B305
B311

Core Areas

(Six courses; 18 credit hours)

Select six courses from the following:

B307	B310	B320	B334
B340	B344	B356	B358
B370	B380	B398	B424

Psychology Specialization (Two courses; 6 credit hours)

Any two different numbered upper-level (300 or above) psychology courses.

Capstone (One course; 3 credit hours)

Select one course from the following options:

Advanced Lab or Honors Research (B.S. degree requires one of these research courses)

B423	B425	B431	B445	B457
B461	B471	B481	B497	B499

Practicum (does not fill requirement for B.S. degree)
B462 B482

Capstone Seminar (does not fill requirement for B.S. degree)
B454

Concentrations

The psychology department invites students to develop a concentration in a particular subdiscipline of psychology by selecting specialization and capstone courses that are aligned with one of three tracks listed below. Concentrations are particularly recommended for students who are considering applying to graduate school in one of these areas. Students who have successfully completed the three courses within one of the three concentration areas (two specialization courses, plus capstone) will receive a certificate of completion from the department. Students should consult with their academic advisors for more information on pursuing a concentration within the major.

TRACK	CORE AREA COURSES	SPECIALIZATION COURSES	CAPSTONE
Clinical Rehabilitation Psychology	<i>Prerequisites:</i> B380: Abnormal Psychology <i>Recommended:</i> B307: Tests and Measurement B320: Behavioral Neuroscience	B322: Introduction to Clinical Rehabilitation B365: Stress and Health B386: Introduction to Counseling	B482: Capstone Practicum in Clinical Rehabilitation (B.A. only) ¹ B481: Capstone Laboratory in Clinical Rehabilitation (B.A. or B.S.) B497/B499: Capstone/Honors Research (B.A. or B.S.) ²
Industrial/Organizational Psychology	<i>Prerequisites:</i> B358: Introduction to Industrial / Organizational Psychology <i>Recommended:</i> B307: Tests and Measurement	B366: Concepts and Applications in Organizational Psychology B368: Concepts and Applications in Personnel Psychology	B462: Capstone Practicum in Industrial/Organizational Psychology (B.A. only) ¹ B471 Capstone Laboratory in Social Psychology (B.A. or B.S.) B497/B499: Capstone/Honors Research (B.A. or B.S.) ²
Behavioral Neuroscience	<i>Prerequisite:</i> B320: Behavioral Neuroscience <i>Recommended:</i> B344: Learning B356: Motivation	B394: Drugs and Behavior B396: Alcohol, Alcoholism, and Drug Abuse <i>Required:</i> B398: Brain Mechanisms of Behavior	B497/B499: Capstone/Honors Research (B.A. or B.S.) ²

¹ B462 and B482 fulfill the capstone requirement only for students enrolled in the B.A. program. Students enrolled in the B.S. program may take a Capstone Practicum as an elective, but it will not satisfy the capstone requirement. Admission to Capstone Practica is highly competitive. Students should consult with their academic advisors on how to best prepare for applying to take Capstone Practica, and to develop an alternative plan should admission to a particular practicum be denied.

² Students who elect to complete Capstone or Honors Research must select a project that is directly related to the concentration that they are pursuing. Students should consult with their faculty mentor or their academic advisor before identifying a research project.

Minor in Psychology

The Department of Psychology offers an undergraduate minor program in psychology that requires 18 credit hours of selected course work. Interested students should obtain information from and submit an application to the psychology secretary. Applications must be approved by the Department of Psychology. Course requirements are as follows:

Introductory Psychology (Two courses; 6 credit hours)

B104
B105

Core Areas (Three courses; 9 credit hours)

Select three courses from the following:

B307 B310 B320 B334
B340 B344 B356 B358
B370 B380 B398 B424

Psychology Elective (One course; 3 credit hours)

Any additional upper-level (300 or above) psychology course.

No grade lower than C– is acceptable for any course in the minor.

A minimum grade point average of 2.0 in minor courses is required.

A minimum of 6 credit hours of the minor must be taken at IUPUI.

Correspondence courses may not be used to fulfill requirements for the minor.

Psychology Plans of Study

There is no single semester-by-semester plan of study for either the B.A. or the B.S. degree. However, one possible sequence of courses for the B.A. degree and one for the B.S. degree is given in the sample program that follows. Variations from these examples should be made based on students' career plans, through consultation with an academic advisor. For career and graduate school information related to psychology, please read "Life Beyond the Bachelor's Degree: A Primer for Psychology Majors" (www.psynt.iupui.edu/bulletin/primer.htm) or refer to "Preparing for Graduate School" or "Preparing for a Job" listed under "Other Links" on the Psychology Department Web page (www.psynt.iupui.edu).

Bachelor of Arts Sample Program (124 cr. required)

Freshman Year

First Semester

PSY B104 Psychology as a Social Science	3
ENG W131 Elementary Composition I	3
Foreign Language 1*	5
HIST H114 History of Western Civilization II	3
COMM R110 Fundamentals of Speech Communication	3
	<u>15-17</u>

*For students needing courses to establish first-year proficiency in a modern foreign language. Otherwise, other courses may be taken to fulfill area requirements or electives.

Second Semester

PSY B103 Orientation to a Major in Psychology	1
PSY B105 Psychology as a Biological Science	3
Foreign Language 2*	5
ENG W132 Elementary Composition II	3
MATH M118 Finite Mathematics	3
	<u>13-15</u>

Sophomore Year

Third Semester

PSY B305 Statistics	3
PSY Core Courses	6
Humanities—List H	3
Physical or Biological Science	3-5
	<u>15-17</u>

Fourth Semester

PSY B311 Introductory Laboratory in Psychology	3
Social Sciences—List S	3
Comparative World Cultures—List C	3
CSCI N207 Data Analysis Using Spreadsheets	3
PSY Core Course	3
	<u>15</u>

Junior Year

Fifth Semester

PSY Core Courses	6
PSY Specialization Course	3
Physical or Biological Science	3-5
Elective	3
	<u>15-17</u>

Sixth Semester	
PSY Core Course	3
PSY Specialization Course	3
Physical or Biological Science	3-5
Junior/Senior Integrator	3
Elective	3
	<u>15-17</u>

Senior Year

Seventh Semester	
PSY Capstone	3
Electives	12
	<u>15</u>

Eighth Semester	
Electives	15-18
CAND 991 Candidate for Graduation	0
	<u>15-18</u>

Bachelor of Science Sample Program (124 cr. required)**Freshman Year**

First Semester	
PSY B104 Psychology as a Social Science	3
ENG W131 Elementary Composition I	3
Social Sciences—List S	3
HIST H114 History of Western Civilization II	3
COMM R110 Fundamentals of Speech Communication	3
	<u>15</u>

Second Semester

PSY B103 Orientation to a Major in Psychology	1
PSY B105 Psychology as a Biological Science	3
Humanities—List H	3
ENG W132 Elementary Composition II	3
MATH M118 Finite Mathematics	3
CSCI N207 Data Analysis Using Spreadsheets	3
	<u>16</u>

Sophomore Year

Third Semester	
PSY B305 Statistics	3
PSY Core Courses	6
Comparative World Cultures—List C	3
Physical or Biological Science	3-5
	<u>15-17</u>

Fourth Semester

PSY B311 Introductory Laboratory in Psychology	3
MATH M119 Brief Survey of Calculus	3
Physical or Biological Science	3-5
PSY Core Courses	6
	<u>15-17</u>

Junior Year

Fifth Semester	
PSY Core Courses	6
PSY Specialization Course	3
Physical or Biological Science	3-5
Elective	3
	<u>15-17</u>

Sixth Semester

PSY Specialization Course	3
Physical or Biological Science	3-5
Junior/Senior Integrator	3
Electives	6
	<u>15-17</u>

Senior Year

Seventh Semester	
PSY Capstone	3
Electives	12
	<u>15</u>

Eighth Semester

Electives	16
CAND 991 Candidate for Graduation	0
	<u>16</u>

Undergraduate Honors Program in Psychology

Psychology majors admitted to the IUPUI Honors Program will be eligible to participate in all psychology honors courses and to graduate with honors in psychology. Usually honors credit is based on individual student-faculty agreement to enhance normal course requirements. Students who are not in the IUPUI Honors Program, but who meet the minimum GPA criterion will be able to participate in honors courses, but will not receive honors credit. For currently enrolled students who have completed at least 12 credit hours, the GPA criterion for admission to the honors program is 3.3. For new students, the criteria for admission are recentered SAT scores of 1200 or graduation in the top 10 percent of the high school class.

To graduate with honors, students may choose one of two tracks. *Track 1:* The student must earn at least 24 hours of honors credit, 6 of which must be in psychology and 6 of which must be outside of psychology (the remaining 12 can be either). At least 3 hours of this credit must be PSY B499 Honors Research, which should culminate in an honors thesis. *Track 2:* The student must earn at least 21 hours of honors credit, 6 of which must be in psychology and 6 of which must be outside of psychology (the remaining hours can be from either). At least 6 hours of the credit must be a research project culminating in a psychology thesis. In this track the university honors council must approve the project proposal. In both tracks only grades of A or B will count for honors credit. To graduate with honors, the student must have an overall GPA of 3.3 with a GPA of at least 3.5 in honors and psychology courses.

For additional information, contact the director of the IUPUI Honors Program, University College, 3140, 815 W. Michigan Street, IUPUI, Indianapolis, IN 46202-5154; telephone (317) 274-2660, or see a psychology advisor.

Psi Chi Honorary Society To become a member of the Psi Chi Honorary Society, undergraduate psychology majors must have an overall GPA of 3.0 and a GPA of 3.5 in psychology. The current membership fee is \$45. Interested students should submit an application to the Psi Chi faculty advisor.

Graduate Programs

The department offers Purdue University Master of Science (M.S.) and Doctor of Philosophy (Ph.D.) degree programs. At the M.S. level, programs are offered in industrial/organizational psychology and clinical rehabilitation psychology. At the Ph.D. level, programs are offered in clinical rehabilitation psychology and psychobiology of addictions.

M.S. Programs

Graduate training at the M.S. level is designed to provide students with theory and practice that will enable them to apply psychological techniques and findings in a subsequent job setting. Depending on the program, the M.S. degree may be completed on a full- or part-time basis and normally takes two or three years to finish. Depending on the case, a minimum of 36 credit hours is required, including departmental core, area core, and elective courses.

Industrial/Organizational Psychology This emphasis is designed to prepare individuals for positions in industry or for entry into an industrial/organizational doctoral program. Students are familiarized with the scientist-practitioner model, which emphasizes both research and the application of problem-solving skills to organizational problems. Students in the program are taught analytic methods for diagnosing work-related problems, developing solutions, and evaluating the effectiveness of those solutions. While the primary focus of the curriculum is on the traditional personnel psychology areas of selection, training, and performance evaluation, students also learn about topics such as decision-making, motivation, leadership, and organizational effectiveness.

Clinical Rehabilitation Psychology This program is designed to prepare students to be effective mental health counselors, particularly in health and rehabilitation settings. The program consists of 48 credit hours and takes approximately two to two-and-a-half years to complete. Academic course work in counseling techniques, assessment, and basic psychological principles is interwoven with supervised practicum placements in varied settings. The program has a strong health and rehabilitation focus, evident in both course work and practicum placements. The program is designed to meet most of the educational requirements for licensure as a mental health counselor in the state of Indiana.

Ph.D. Programs

Clinical Rehabilitation Psychology Using a scientist-practitioner model, this program integrates the assessment and intervention skills traditionally associated with clinical psychology and rehabilitation psychology. The emphasis is on optimizing the adaptation to the community of persons with disabilities and chronic illnesses. Graduates of the program will be qualified to assume positions as direct-service providers, planners, academicians, trainers, evaluators, researchers, and consultants. The program emphasizes rigorous academic training, which is combined with practical application in a wide variety of rehabilitation centers in Indianapolis and elsewhere. Full-time study and a minimum of 85 credit hours (postbaccalaureate) are required, and the program is expected to take five years to complete. The program includes diverse training in psychology, including a psychology core, statistics and measurement, rehabilitation psychology, internships and practica, and an empirical thesis and doctoral dissertation. Rehabilitation specialty courses covering a broad range of disabling conditions and intervention techniques are offered. A course in ethics is also required.

Psychobiology of Addictions This program is designed to promote a comprehensive understanding of the neurobiological bases of behavior, with an emphasis on the behavioral and neurobiological aspects of drugs of abuse and addictive behaviors. General goals of the program are to develop knowledge and expertise in the neurobiological mechanisms of behavior, to develop skills in applying methods of behavioral neuroscience research to the problems of alcohol and drug abuse and addiction, and to train competence in communication and teaching of knowledge and research skills. Students will obtain broad-based training in the combined disciplines of the neurosciences (e.g., behavioral and developmental neuroscience, psychopharmacology, neurobiology) and in the behavioral sciences (e.g., experimental psychology, cognitive psychology, learning, experimental design and analysis, animal models of drug abuse and addiction). The psychobiology of addictions program is an IUPUI program that is regulated through the Department of Psychological Sciences at Purdue, West Lafayette. Students take coursework at IUPUI, but must meet all Purdue requirements and must have at least two committee members from Purdue for significant program milestones, such as Ph.D. preliminary examinations and dissertation research committees. A minimum of 85 credit hours (postbaccalaureate) are required, plus approval of the course of study by the student's advisory committee. The program intends to train students seeking careers in teaching and/or research in academic environments, medical institutions, pharmaceutical firms, and governmental agencies.

Financial Support

Financial support for eligible graduate students at both the M.S. and Ph.D. levels is available through teaching and research assistantships, tuition stipends, and fellowships. Full assistantships require a minimum of 20 hours of work per week and include at least partial tuition remission in addition to salary.

Admission Requirements

Industrial/Organizational Psychology

Undergraduate training in psychology, mathematics, and the physical sciences is highly desirable, though not required. Applicants should have had at least one undergraduate course in statistics, as well as one in tests and measurements. If those courses have not been completed, the student will be required to complete them as prerequisites for admission to the program. To be considered for admission without probation, applicants must obtain (a) a baccalaureate degree from a college or university of recognized standing, (b) a GPA of 3.0 or higher on a 4.0 scale, (c) a minimum subtotal on the GRE verbal and quantitative of 1100 with a quantitative score of at least 550, (d) three favorable letters of recommendation. The student who does not meet the above standards, but shows potential for graduate studies could be recommended for conditional admission.

Clinical Rehabilitation Psychology

Undergraduate training in psychology, mathematics, and the physical sciences is highly desirable, though not required. Undergraduate course work must include psychology courses in (1) tests and

measurement, (2) statistics, (3) human physiology or physiological psychology, and (4) abnormal psychology. If those courses have not been completed, the student will be required to complete them as prerequisites for admission to the program.

Students may apply directly to the Ph.D. program or to the terminal M.S. program (or both simultaneously). For an applicant to be considered for admission to the M.S. program, the applicant must obtain (a) a baccalaureate degree from a college or university of recognized standing, (b) a GPA of 3.0 or higher on a 4.0 scale, (c) a minimum subtotal on the GRE verbal and quantitative of 1100 with a quantitative score of at least 550, (d) three favorable letters of recommendation.

The Ph.D. program seeks talented and motivated persons who have an interest in psychology and rehabilitation and who have the potential to make creative contributions as clinical rehabilitation psychologists. Admission to the Ph.D. program is competitive and only under unusual circumstances will students be considered for admission if they fail to meet the following minimum standards: (a) an undergraduate and graduate grade point average of 3.2 or higher on a 4.0 scale, (b) a minimum composite GRE score (verbal and quantitative) of 1200, (c) three favorable letters of recommendation, and (d) a personal statement expressing an interest in the field of rehabilitation psychology. Prior clinical and research experience is recommended, but not required, for admission.

Psychobiology of Addictions This Ph.D. program is designed for individuals interested in academic or research careers studying the physiological bases of addictive behaviors and drugs of abuse. Successful applicants typically have (a) an undergraduate and graduate grade point average of 3.2 or higher on a 4.0 scale, (b) a minimum composite GRE score (verbal and quantitative) of 1200, (c) three favorable letters of recommendation, and (d) a personal statement expressing an interest in the psychobiology of addictions. Students with undergraduate degrees in psychology or the life sciences (e.g., biology, chemistry) are encouraged to apply.

Admission Information

Students are admitted only for fall enrollment, and the deadline for receipt of application materials is February 1. Students interested in information about admission to graduate programs in psychology should write directly to the graduate program coordinator, Department of Psychology, Indiana University-Purdue University Indianapolis, Science Building LD124, 402 N. Blackford Street, Indianapolis, IN 46202-3275; telephone (317) 274-6945.

Research Facilities

The Department of Psychology has extensive laboratory and computer facilities to support faculty and student research. More than 8,000 square feet of laboratory space in the School of Science complex is devoted to psychological research in the areas of clinical rehabilitation psychology, industrial/organizational psychology, life span development, cognition, and sensation and perception. Separate animal quarters and modern laboratories are also available to support research in

animal experimental psychology and psychobiology. Computer support includes microcomputer clusters and networks within the department and terminal connections to several mainframe computers. Internship and practicum sites are available at the Indiana University Medical Center and with numerous other organizations in metropolitan Indianapolis.

Transfer Credit

A maximum of 12 credit hours can be transferred into the M.S. program, and a maximum of 36 credit hours can be transferred into the doctoral program. Transfer hours will be accepted only if they are appropriate and judged acceptable by the student's plan-of-study committee.

Temporary Student Status

A student may enroll in some graduate program courses without formal admission after making application as a temporary graduate student. No more than 12 hours of credit may be applied to an advanced degree program if an individual is later admitted as a regular graduate student. However, if an application to a regular degree program is approved during the session in which a person is enrolled for the 12th credit hour as a nondegree registrant, then all credits taken prior to and during that term will be eligible for inclusion in a plan of study for a degree program. For inclusion, the courses must be appropriate to the degree program and acceptable to the department and the graduate school. No course in which a grade of less than B (e.g., B-) has been received will be permitted in a plan of study if the course was taken while the student was enrolled as a nondegree registrant. Nondegree registrants may be required to secure consent from each of the departments in which they would like to register for courses.

Research Interests of Faculty

Major research interests of faculty include applied social psychology, biofeedback, cross-cultural investigations, industrial/organizational psychology, quantitative psychology, measurement theory and development, physiological psychology, program planning and evaluation, clinical rehabilitation psychology, behavioral psychopharmacology, addictions, cognitive developmental psychology, learning, and student/faculty performance. A current and more detailed listing of faculty research interests is available from the department.

Courses in Psychology (PSY)

Note: P—prerequisite; C—corequisite; Fall—offered fall semester; Spring—offered spring semester; Summer—offered during the summer session. For courses with no designated semester, consult the *Schedule of Classes*. **Equiv.**—course is equivalent to the indicated course taught at Indiana University Bloomington, or the indicated course taught at Purdue University, West Lafayette.

Undergraduate Level

B103 Orientation to a Major in Psychology (1 cr.) This course will help students establish goals for their academic experience in three areas: career,

relationships, and personal life. They will be introduced to psychological resources on campus, the faculty, and student organizations. They also will make a curriculum plan to meet their learning objectives.

B104 Psychology as a Social Science (3 cr.)

Equiv. to IU PSY P102 and PU PSY 120. Fall, spring, summer. Introduction to scientific method, individual differences, personality, developmental, abnormal, social, and industrial psychology.

B105 Psychology as a Biological Science (3 cr.)

Equiv. to IU PSY P101 and PU PSY 120. Fall, spring, summer. Research methods and content areas of learning, sensation-perception, psychophysiology, motivation, emotions, and statistics.

B252 Topics in Psychology (1-3 cr.) Topics in psychology and interdisciplinary applications. May be repeated, provided different topics are studied, for a maximum of 4 credit hours.

B292 Readings and Research in Psychology (1-3 cr.)

P: Consent of instructor. Fall, spring. Independent readings and research on psychology problems. For freshmen and sophomores only.

B305 Statistics (3 cr.) P: B104 or B105, and 3 credits of math that carry School of Science credit. Equiv. to IU PSY K300, K310, and PU PSY 201. Fall, spring, summer. Introduction to basic statistical concepts; descriptive statistics and inferential statistics.

B307 Tests and Measurement (3 cr.) P: 3 credit hours of psychology and B305. Equiv. to IU PSY P336 and PU PSY 202. An introduction to psychological measurement, including psychophysics, scaling techniques, psychological testing, and individual differences.

B310 Life Span Development (3 cr.) P: 3 credit hours of psychology. Fall, spring, summer. Equiv. to PU PSY 230. Emphasizes the life span perspective of physical and motor, intellectual and cognitive, language, social and personality, and sexual development. Commonalities across the life span, as well as differences among the various segments of the life span, are examined. Theory, research, and practical applications are stressed equally.

B311 Introductory Laboratory in Psychology (3 cr.)

P: B105 and B305 or consent of instructor. Equiv. to IU PSY P211, and PU PSY 203. Fall, spring. Introductory laboratory in experimental methods and statistical treatment of data in several areas of psychology; introduction to experimental report writing.

B320 Behavioral Neuroscience (3 cr.)

P: B105. Equiv. to IU PSY P326 and PU PSY 220. Review of necessary background in neurophysiology and neuroanatomy followed by the relationship of physiology to sensory processes, motivation, and learning. Emphasis on research with animals.

B322 Introduction to Clinical Rehabilitation Psychology (3 cr.)

P: 3 credit hours in psychology. This course surveys various aspects of the practice of clinical rehabilitation psychology from a scientist-practitioner perspective. Aspects of the historical framework of clinical psychology will be discussed. In addition, various aspects of the present state of

clinical psychology will be covered in addition to directions for the future. Specific topics to be addressed include health psychology, new trends in diagnosis and assessment, changing health care patterns and the impact of managed care, and specific areas of rehabilitation and case management.

B334 Perception (3 cr.) P: B105. Equiv. to IU PSY P329 and PU PSY 310. Consideration of the concepts and research in perception. Relation of sense organ systems to human behavior. Some attention to social and cultural factors.

B340 Cognition (3 cr.) P: B105 or consent of instructor. Equiv. To IU PSY P335, and PU PSY 200. A survey of information-processing theories from historical antecedents through current theories. Research methodology and theory will be emphasized throughout the discussion of issues such as perception, attention, memory, reasoning, and problem solving.

B344 Learning (3 cr.) P: B105. Equiv. to IU PSY P325 and PU PSY 314. History, theory, and research involving human and animal learning and cognitive processes.

B354 Adult Development and Aging (3 cr.) P: B310 or consent of instructor. Equiv. to PU PSY 367. Examines changes that occur with age in the following areas: intelligence, memory, personality, sexuality, health, living environments, economics, developmental disorders, and treatment for developmental disorders.

B356 Motivation (3 cr.) P: 3 credit hours of psychology. Equiv. to IU PSY P327 and PU PSY 333. Study of motivational processes in human and animal behavior, how needs and incentives influence behavior, and how motives change and develop.

B358 Introduction to Industrial/ Organizational Psychology (3 cr.) P: 3 credit hours of psychology or consent of instructor. Equiv. to IU PSY P323, and PU PSY 372. This course surveys various aspects of behavior in work situations using the scientist-practitioner perspective. Traditional areas covered from personnel psychology include selection, training, and performance appraisal; areas surveyed from organizational psychology include leadership, motivation, and job satisfaction.

B360 Child and Adolescent Psychology (3 cr.) P: 3 credit hours of psychology. Equiv. to IU PSY P316 and PU PSY 235. Development of behavior in infancy, childhood, and adolescence, including sensory and motor development and processes such as learning, motivation, and socialization.

B362 Practicum in Child Psychology (3 cr.) P: Consent of instructor. Experience working with children in field setting. May be repeated once.

B365 Stress and Health (3 cr.) P: 3 hours of psychology. Stress is examined from biological, psychological, and social perspectives. Topics include sources of stress, factors that influence stress and coping, effects of stress on psychological and physical well-being and performance, and stress-management techniques.

B366 Concepts and Applications in

Organizational Psychology (3 cr.) P: B358 or consent of instructor. Some organizational psychology topics introduced in the I/O psychology survey course are covered in more depth. Advanced information is presented for each topic, and students have the opportunity for several different hands-on applications including case projects and computer exercises. Example topics are organizational culture, employee attitudes, motivation, and leadership.

B368 Concepts and Applications in Personnel Psychology (3 cr.)

P: B358 or consent of instructor. Some personnel psychology topics introduced in the I/O psychology survey course are covered in more depth. Advanced information is presented for each topic, and students have the opportunity for several different hands-on applications including case projects and computer exercises. Example topics are job analysis, selection, performance appraisal, and training.

B370 Social Psychology (3 cr.)

P: 3 credit hours of psychology. Equiv. to IU PSY P320 and PU PSY 240. Fall, spring, summer. Study of the individual in social situations including socialization, social perception, social motivation, attitudes, social roles, and small group behavior.

B374 Group Dynamics Theory and Research (3 cr.)

P: B370. An intensive survey of research and theory on the behavior of small groups and the research methods by which groups are studied.

B376 The Psychology of Women (3 cr.)

P: 3 credit hours of psychology. Equiv. to IU PSY P460, and PU PSY 239. A survey of topics in psychology as related to the biological, social, and psychological development of women in modern society.

B380 Abnormal Psychology (3 cr.)

P: 3 credit hours of psychology. Equiv. to IU PSY P324 and PU PSY 350. Fall, spring, summer. Various forms of mental disorders with emphasis on cause, development, treatment, prevention, and interpretation.

B382 Practicum in Community Psychology (3 cr.)

P or C: B370 or B380 and consent of instructor. Experience working with individuals who may have a wide range of psychological problems. Focus is upon both the individual and helping agency as factors in the community.

B386 Introduction to Counseling (3 cr.)

P: B104, B310, B380. This course will help students acquire a repertoire of basic counseling interview skills and strategies and expose students to specific helping techniques. This will be an activity-based course and students will enhance the general education goals of listening and problem solving.

B394 Drugs and Behavior (3 cr.)

P: B105. Equiv. to PU PSY 428. An introduction to psychopharmacology, the study of drugs that affect behavior, cognitive functioning, and emotions, with an emphasis on drugs of abuse. The course will explore how drugs alter brain function and the consequent effects, as well as the long-term consequences of drug exposure.

B396 Alcohol, Alcoholism, and Drug Abuse (3 cr.)

Provides introduction to the use, misuse, and dependent use of alcohol and other mood-altering

drugs. Topics include basic principles of drug action, the behavioral and pharmacological effects of drugs, and the factors that influence use, abuse, and addiction. Addiction assessment, treatment, and treatment outcome also will be covered.

B398 Brain Mechanisms of Behavior (3 cr.) P: B320 Spring. An advanced topical survey of the neurobiological basis of behavior, focusing on the neural substrates and the cellular and neurochemical processes underlying emotions, motivation and goal-directed behavior, hedonic experience, learning, and cognitive function. Integrates experimental research across different levels of analysis (genetic, molecular, cellular, neural systems).

B420 Humanistic Psychology (3 cr.) A comprehensive survey of the field of humanistic psychology. Explores human experience as a focal point in the study of psychology. Use of didactic and experiential teaching methods.

B422 Professional Practice (1-3 cr.) P: Consent of instructor. Can include a professional internship in the community, peer advising in the Psychology Advising Office, or teaching internship in the department. Faculty mentor must approve and oversee activity. Academic work will be required to earn credit.

B423 Capstone Laboratory in Physiological Psychology (3 cr.) P: B311, B305, and B320. Equiv. to IU PSY P426. Experiments and demonstrations in physiological psychology.

B424 Theories of Personality (3 cr.) P: 3 credit hours of psychology. Equiv. to IU PSY P319 and PU PSY 420. Methods and results of the scientific study of personality, including the development, structure, and functioning of the normal personality.

B425 Capstone Laboratory in Personality (3 cr.) P: B311, B424, and B305. Demonstrations and experiments in personality research.

B431 Capstone Laboratory in Sensation and Perception (3 cr.) P: B311, B305, or B334. Equiv. to IU PSY P424. Experiments and demonstrations in sensation and perception with an emphasis on their physiological basis.

B445 Capstone Laboratory in Learning (3 cr.) P: B311, B305, and B344. Equiv. to IU PSY P436. Experiments and demonstrations involving learning and cognitive processes.

B452 Seminar in Psychology (1-3 cr.) P: B305 and B311. Topics in psychology and interdisciplinary applications. May be repeated, provided different topics are studied, for a maximum of 6 credit hours.

B454 Capstone Seminar in Psychology (3 cr.) P: B305 and B311 or consent of instructor. Topics in psychology and interdisciplinary applications, which have been approved to fulfill the capstone course requirement.

B457 Capstone Laboratory in Motivation (3 cr.) P: B311, B305, and B356. Equiv. to IU PSY P436. Experiments and demonstrations in motivation.

B460 Behavior Management (3 cr.) P: Consent of instructor. Equiv. to IU PSY P430, and PU PSY 380. Conducted as a seminar and a practicum for psychology majors and teachers in the principles and methods of behavior management.

B461 Capstone Laboratory in Developmental Psychology (3 cr.) P: B311, B305, and B310 or B360. Equiv. to IU PSY P429. Principal research methods in developmental psychology and their application to selected problems.

B462 Capstone Practicum in Industrial/Organizational Psychology (3 cr.) P: B366 or B368 or equivalent and consent of instructor. Provides students with work experience, one day per week, in local organizations. Practice will be obtained in using the applied skills of industrial psychology to solve actual organizational problems.

B471 Capstone Laboratory in Social Psychology (3 cr.) P: B311 and B305. P or C: B370. Equiv. to IU PSY P421. Observational, correlational, and experimental studies in social psychology.

B472 Practicum in Group Dynamics (3 cr.) P: 6 credit hours of psychology and consent of instructor. Equiv. to IU PSY P321. Application in the field of group dynamics through experience as a participant in group sensitivity training.

B481 Capstone Laboratory in Clinical Rehabilitation Psychology (3 cr.) P: B305 and B311, B380. Principal research methods in clinical rehabilitation psychology and their application to selected problems.

B482 Capstone Practicum in Clinical Rehabilitation Psychology (3 cr.) P: B386 and consent of instructor. Students are placed in a clinical/community setting and gain applied practicum experience working with individuals who have psychological, medical and/or physical health problems. Relevant multi-cultural issues will be addressed.

B492 Readings and Research in Psychology (1-3 cr.) P: Consent of instructor. Equiv. to IU PSY P495 and PU PSY 390 and 391. Fall, spring, summer. Independent readings and research on psychological problems.

B497 Capstone Individual Research (3 cr.) P: B305, B311, and consent of instructor. Independent research project. This course requires the student to develop a research question, design a research study, and complete a research paper. Additionally, students are required to present their research at an approved conference. This activity has been approved to fulfill the capstone course requirements.

B499 Capstone Honors Research (cr. arr.) P: Consent of instructor. Equiv. to IU PSY P499. Fall, spring, summer. Independent readings and research resulting in a research paper.

Graduate Level

518 Memory and Cognition (3 cr.) A graduate-level survey of theories and research concerned with the acquisition, retention, and retrieval of information. Topics include amnesia, eyewitness memory, forgetting, developmental trends in memory,

related issues in attention, language processing, and problem solving.

540 History of Psychology (3 cr.) P: 9 credit hours of psychology. A review of the philosophical, theoretical, and methodological issues that entered into the development of modern psychology. Emphasis on historical themes that continue to be active in the science and profession of psychology.

I544 Psychobiology of Learning and Motivation (3 cr.) P: B320 or equivalent. The course examines past and present biologically based theories of learned and motivated behavior. Neural processes of feeding, drinking, aggression, fear, anxiety, and sexual behavior will be emphasized. Selected coverage of behavioral research principles used to investigate these processes also will be discussed.

I545 Psychopharmacology (3 cr.) P: 615 or consent of instructor. A survey of the effects of drugs on behavior, cognitive functioning, and emotions. Emphasis will be placed on the practical advantages of understanding how psychotropic drugs work, and on how the brain functions in health and disease. Students will be exposed to the most current theories and research in the field.

I549 Introduction to Vocational Rehabilitation (3 cr.) P: 9 credit hours of psychology. Philosophy, procedures, and practices underlying the vocational rehabilitation movement, including the historical, social, cultural, and economic factors and legislation that have contributed to its rapid development.

I555 Medical and Psychosocial Aspects of Chronic Illness (3 cr.) P: 9 credit hours of psychology including I549. Provides medical information for rehabilitation counselors and introduces students to medical terminology. Includes knowledge of the etiology, prognosis, methods of treatment, and effects of disabling conditions, and implications for the rehabilitation counselor. Counselor relationships with other health-related personnel are emphasized.

565 Interpersonal Relations (3 cr.) P: 9 credit hours of psychology. Review of major current theoretical formulations of the interpersonal relationship, including a discussion of some of the more prominent research. Focus is primarily on two-person interpersonal relations.

570 Industrial Psychology (3 cr.) Survey of the applications of psychological principles and of research methodology to the various human problems in the industry, such as personnel selection and appraisal, the organizational and social context of human work, the job and work situation, human errors and accidents, and psychological aspects of consumer behavior.

572 Organizational Psychology (3 cr.) A survey of basic behavioral science research and thinking as these contribute to the understanding of individual, dyadic, group, intergroup, and other large organization behavioral phenomena. The topics covered include motivation, perception, attitudes and morale, communication, leadership, conflict, problem solving, behavior change, and organizational effectiveness.

574 Psychology of Industrial Training (3 cr.) P: 3 credit hours of psychology. Use of psychological measurement techniques in assessing training needs and evaluating training effectiveness and the application of learning research and theory to industrial training.

1578 Occupational Analysis (3 cr.) P: 570. Survey of systematic study of human work, including techniques for analyzing jobs and occupations for personnel and related purposes. Survey of occupational research and related topics. Practice in job analysis.

1580 Survey of Clinical Approaches with Children and Adolescents (3 cr.) P: 9 credit hours in psychology. Introduction to the following as they relate to children and adolescents: (1) psychopathological disorders and behavior problems, (2) theories of psychopathology and behavior problems, (3) evaluation techniques, and (4) therapeutic and behavioral change procedures. This is a lecture course.

590 Individual Research Problems (1-3 cr.) P: 12 credit hours of psychology and consent of instructor. Opportunity for students to study particular problems in any field of psychology or to learn research techniques under the guidance of a faculty member.

1591 Psychopathology (3 cr.) P: Student enrolled in psychology graduate program or consent of instructor. An intensive survey of the methods, theories, and research concerning the nature, causes, and development of psychopathology. An evaluation of current systems of assessment and classification of abnormal behavior is emphasized.

1595 Seminar in Teaching Psychology (0-3 cr.) P: Consent of the Department of Psychology. A problem-solving approach to teaching psychology at IUPUI. Planning the course; anticipating problems; dealing with ongoing teaching problems. Current faculty members will present their innovative techniques. Participants will evaluate each other's classroom performance.

600 Statistical Inference (3 cr.) P: Degree-seeking student in psychology graduate program or permission of instructor and B305 or equivalent. Emphasis on principles underlying both parametric and nonparametric inference.

601 Correlation and Experimental Design (3 cr.) P: 600. Continuation of 600 with emphasis on the design and analysis of experiments.

605 Applied Multivariate Analysis (3 cr.) P: 600. A survey of the most frequently employed multivariate research techniques, such as multivariate generalizations of univariate tests and analysis of variance, principal components, canonical analysis, and discriminant analysis. A central theme of the course is the general linear model, both univariate and multivariate. A multipurpose program for this model provides the student with practical experience in conducting multivariate research.

608 Measurement Theory and the Interpretation of Data (3 cr.) P: 600 and B307, or equivalent. The theory of measurement and the development of reliability and the Spearman-Brown equations, true scores and variables, and correction

for attenuation. Variance or covariance of combinations of variables. Item analysis and test construction strategies. Reliability and validity of measurements and the influence of measurement error and measurement threats to research design.

611 Factor Analysis (3 cr.) P: 600. Theory and applications of factor analysis in psychological research.

1613 Psychiatric Rehabilitation (3 cr.) P: Consent of instructor. A seminar examining recent developments in the rehabilitation of persons with severe psychiatric disabilities. Covers assertive case management, vocational approaches, clubhouse models, residential alternatives, psychoeducation, and the consumer movement. Field observations complement classroom instruction. Issues in program planning and cost effectiveness will be discussed.

1614 Behavioral Medicine in Rehabilitation (3 cr.) P: Consent of instructor. The theory and practice of behavioral medicine will be explored. Emphasis is on the application of behavioral principles to individuals suffering from various chronic diseases or disabilities including spinal cord injury, chronic pain, cancer, diabetes, strokes, cardiovascular diseases, and epilepsy.

615 Introduction to Psychobiology (3 cr.) P: Consent of instructor. A survey of the integrated neurosciences emphasizing physiological psychology. Neural processes of sensory and motor function, arousal and sleep, motivation, learning and memory, language function, and personality disorders will be presented with selected coverage of neuroanatomy, neurophysiology, neuropharmacology, and neuroendocrinology. Both normal and pathological functions will be covered.

1618 Interventions in Health Psychology (3 cr.) P: Consent of instructor. The goal of the course is to familiarize students with clinical interventions and research relevant to health problems and lifestyle. This will enable students to critically evaluate the work that has been accomplished, and to design and implement intervention protocols.

622 Animal Learning (3 cr.) A survey of the methods, problems, and research in Pavlovian, instrumental, and operant conditioning. Current issues and attempts at theoretical integration are highlighted. Emphasis is also given to the empirical and conceptual foundations of the present views on the mechanisms governing learned behavior.

624 Human Learning and Memory (3 cr.) P: A first course in human learning and consent of instructor. Selected survey of important problems in the encoding, storage, and retrieval of laboratory and naturalistic events.

628 Perceptual Processes (3 cr.) This course is an advanced introduction to the psychology of perception. The course emphasizes visual and auditory perception, reviewing basic concepts, methodologies, research findings, and theoretical approaches. Theories of direct perception, constructivist perception, and computational vision are discussed in detail.

640 Survey of Social Psychology I (3 cr.) P: B370 or equivalent. An extensive survey of methods, research, and theory in social psychology.

1643 Field Methods and Experimentation (3 cr.) P: 600. Covers methods appropriate for field experimentation and program evaluation. Topics will include quasi-experimental designs, sampling procedures, and issues associated with program evaluation.

646 Seminar in Social-Personality Psychology (3 cr.) P: Consent of instructor. A seminar covering a special topic in personality or social psychology. Specific topic varies from seminar to seminar.

1650 Developmental Psychology (3 cr.) Major concepts, principles, and facts concerning the biological and environmental influences on behavioral and psychological development. Particular emphasis on essential principles of ontogenetic development (life span) emerging from current research in genetics and psychology.

655 Cognitive Development (3 cr.) P: Consent of instructor. An analysis of research findings and current theories relevant to the development of cognitive processes. Emphasis on the changing characteristics of some fundamental cognitive processes. Special attention is given to verbal behavior and language.

1664 Psychological Assessment in Rehabilitation I (3 cr.) P: Consent of instructor. Presentation of general principles of psychological assessment, professional practice, interviewing, intelligence/cognitive assessment, and psychological report writing. Supervised practice in the development of direct service skills in interviewing, behavioral observation, and psychometric assessment of cognitive abilities. Emphasis on functional implications of test results for rehabilitation populations.

1665 Intervention I: Counseling Approaches (3 cr.) P: Consent of instructor. Introduces doctoral students to intervention procedures used in rehabilitation psychology. The course has both didactic and clinical skills components, involving traditional counseling interventions, behavior therapy, and biofeedback. Applications to disabled populations will be emphasized.

1666 Intervention II: Cognitive Behavioral Interventions (3 cr.) P: Consent of instructor. Theory, research, and clinical application of cognitive-behavioral therapy (CBT). Addresses the history and development of CBT, assessment and intake interview process, CBT intervention techniques, and CBT treatment of several disorders. Relevant multicultural issues will also be discussed.

1669 Psychological Assessment in Rehabilitation II (3 cr.) P: 1664 and consent of instructor. Presentation of psychometric foundations and the basic prediction model in personality/interest assessment. Coverage of the history of personality, assessment, personality development, and supervised clinical practice in personality/interest assessment in rehabilitation. Emphasis on prediction of everyday functioning.

1670 Ethical Legal and Cultural Issues in Psychology (3 cr.) P: Admission to graduate training in psychology or consent of instructor. Exploration of models of ethical decision-making. Examination of

ethical principles and legal mandates that apply to professional psychology including psychologists' roles in health care service delivery, consultation (clinical and organizational), research, and teaching. Examination of cultural issues including issues related to ethnicity, age, gender, religion, and sexual orientation.

I675 Human Neuropsychology (3 cr.) P: Admission to graduate training in psychology or consent of instructor. Review of essential neuroanatomy, survey of experimental and correlational research methods in the study of brain-behavior relationships, and overview of the history of neuropsychology. Critical examination of neural models for human behavior: hemispheric specialization and integration, sensation/perception, motor skills, language, spatial processing, attention, memory, executive operations, and gender differences.

I676 Principles of Clinical Neuropsychology (2 cr.) P: Admission to graduate training in Clinical Rehabilitation Psychology or consent of instructor. Application of theoretical models of brain-behavior relationships to evaluation of patients with suspected nervous system disorders. Review of neuropsychological profiles associated with various neurological and psychiatric disorders. Examination of ethical/cultural issues in neuropsychological evaluation. This course does not provide training in test administration (see PSY I677).

I677 Neuropsychological Assessment Lab (1 cr.) P: I664 and I669 and admission to graduate training in Clinical Rehabilitation Psychology. Students must register for I676 concurrently with I677. Training and supervised practice in neuropsychological assessment techniques and procedures. Critical review of the psychometric properties of prevailing assessment tools. Review models of interpretation/reporting. Development of proficiencies in administering prominent neuropsychological tests, neuropsychological interviewing, and writing of reports that integrate multidisciplinary data.

680 Seminar in Industrial-Personnel Psychology (3 cr.) P: 570, 572, and 601. Extensively surveys the various areas of industrial-personnel psychology (e.g., selection, placement, training, performance appraisal). Provides a critical and up-to-date review of recent and classical research in these areas.

681 Seminar in Research Methodologies of Industrial/Organizational Psychology (3 cr.) P: 570, 572, 601, or consent of instructor. Intensive analysis of application of various research and statistical methods to the study of human behavior in organizational settings.

682 Advanced Seminar in Industrial/Organizational Psychology (3 cr.) P: 570, 572, or equivalent. Special topics in industrial and organizational psychology are offered on a rotating basis. Examples of the special topics are work motivation, leadership, advanced selection and placement, and performance appraisal. One topic will be treated each semester.

683 Seminar in Industrial-Social Psychology (3 cr.) P: 570, 572, or equivalent. Study of research and theory emphasizing social perception, attitudes, supervisory behavior, employee participation, motivation, and organizational structure.

684 Practicum in Industrial/Organizational Psychology (3 cr.) P: 570, 572, and consent of instructor. Practical experience in the development and implementation of field research in organizational settings. Gives students the opportunity to spend eight hours per week within local business organizations to gain experience and skills in industrial/organizational psychology.

I689 Practicum in Clinical Rehabilitation Psychology (3 cr.) P: I549 and consent of instructor. Supervised practice of rehabilitation psychology in a community agency or organization.

I691 Seminar in Clinical Rehabilitation Psychology (3 cr.) P: Consent of instructor. Current trends, problems, and developments in rehabilitation. Students pursue a special interest and share information and experience with the group. Individual reports and group discussions.

I697 Internship in Clinical Psychology (0-9 cr.) P: Consent of instructor. Opportunities for application of theory and practice of rehabilitation psychology and case management in a rehabilitation setting under supervision of the Department of Psychology and the agency.

698 Research M.S. Thesis (3 cr.)

699 Research Ph.D. Thesis (0-12 cr.)

General Science

General Science courses offer opportunities for interdisciplinary study for both beginning and advanced students.

Courses in General Science (SCI)

Note: P—prerequisite; Fall—offered fall semester; Spring—offered spring semester

120 Windows on Science (1 cr.) P: None. Fall, spring. Designed for new and prospective science majors, the course covers an integrative overview of science, examining science and society, the scientific method and community of scientists, undergraduate research, professional ethics, an exploration of science-based careers, and strategies for success as a science major.

495 Readings and Research in Science (1-3 cr.) P: Junior or senior standing, consent of instructor(s), and approval of review committee. Every semester, time arranged. Independent, interdisciplinary study and research in science and science-related fields. A major paper must be submitted. May be repeated for a maximum of 6 credit hours.

Administrative Officers

DAVID L. STOCUM, Ph.D., *Dean*

JOSEPH E. KUCZKOWSKI, Ph.D., *Associate Dean for Academic Programs and Student Development*

KIM S. NGUYEN, Ed.D., *Assistant Dean for Recruitment and Special Projects*

KATHRYN J. WILSON, Ph.D., *Associate Dean for Research and Graduate Studies*

N. DOUGLAS LEES, Ph.D., *Chairperson, Department of Biology*

RAIMA M. LARTER, Ph.D., *Chairperson, Department of Chemistry*

MATHEW J. PALAKAL, Ph.D., *Chairperson, Department of Computer and Information Science*

ANDREW P. BARTH, Ph.D., *Chairperson, Department of Geology*

BENZION BOUKAI, Ph.D., *Chairperson, Department of Mathematical Sciences*

B. D. NAGESWARA RAO, Ph.D., *Chairperson, Department of Physics*

J. GREGOR FETTERMAN, Ph.D., *Chairperson, Department of Psychology*

Resident Faculty

Abramovich, Yuri A., *Professor of Mathematical Sciences (1989); M.S., 1968, Ph.D., 1972, Leningrad State University, U.S.S.R. Specialty: Functional Analysis.*

Alexy, William D., *Adjunct Assistant Professor of Psychology (1992); B.A., 1971, Concord College; M.A., 1972, Radford University; Ph.D., 1981, State University of New York at Buffalo. Specialty: Rehabilitation Counseling.*

Allen, Ruth D., *Associate Professor of Biology (1993); B.Sc., 1983, Ph.D., 1986, University of New Castle, Australia. Specialty: Immunology.*

Aliprantis, C. D., *Adjunct Professor of Mathematical Sciences, School of Science, and Adjunct Professor of Economics, School of Liberal Arts (1975); B.S., 1968, University of Athens, Greece; M.S., 1971, Ph.D., 1973, California Institute of Technology. Specialties: Functional Analysis, Operator Theory, Mathematical Economics.*

Appleby, Drew C., *Professor of Psychology (1999); B.A., 1969, Simpson College; M.S., 1971, Iowa State University; Ph.D., 1972, Iowa State University. Specialty: Teaching and Learning.*

Atekwana, Eliot A., *Assistant Professor of Geology (1998); B.S., 1984, University of Maryland, College Park; M.S., 1987, Howard University; Ph.D., 1996, Western Michigan University. Specialties: Hydrogeology, Hydrogeochemistry, Stable Isotope Geochemistry.*

Bard, Martin, *Professor of Biology (1975); B.S., 1965, City College of New York; Ph.D., 1971, University of California, Berkeley. Specialty: Biochemical Genetics.*

Barman, Charles R., *Adjunct Associate Professor of Biology (1994); B.S., 1968, University of Wisconsin-Oshkosh; M.S.T., 1972, University of Wisconsin-Superior; Ed.D., 1974, University of Northern Colorado. Specialty: Teacher Education.*

- Barth, Andrew P., *Chairperson and Associate Professor of Geology* (1989); B.S., 1981, M.S., 1985, *California State University, Los Angeles*; Ph.D., 1989, *University of Southern California*. Specialties: Petrology, Geochemistry.
- Belecky-Adams, Teri L., *Assistant Professor of Biology* (2001); B.S., 1985, *University of Wyoming*; Ph.D., 1994, *University of Cincinnati College of Medicine*. Specialties: Developmental Biology, Retinal Regeneration.
- Bigatti, Silvia M., *Assistant Professor of Psychology* (2000); B.A., 1995, *San Diego State University*; Ph.D., 2000, *San Diego State University/University of California, San Diego Joint Doctoral Program in Clinical Psychology*. Specialty: Behavioral Medicine.
- Bittinger, Marvin, *Professor of Mathematical Sciences* (1968); B.S., 1963, *Manchester College*; M.S., 1965, *The Ohio State University*; Ph.D., 1968, *Purdue University*. Specialty: Mathematics Education.
- Blazer-Yost, Bonnie J., *Associate Professor of Biology* (1993); B.S., 1973, *Lebanon Valley College*; Ph.D., 1984, *University of Pennsylvania*. Specialty: Physiology.
- Bleher, Paul M., *Professor of Mathematical Sciences* (1994); M.S., 1970, *Moscow State University*, U.S.S.R.; Ph.D., 1974, *Institute of Applied Mathematics of the Russian Academy of Sciences*, U.S.S.R. Specialties: Probability Theory, Mathematical Physics, Statistical Physics.
- Bond, Gary R., *Chancellor's Professor of Psychology* (1983); B.S., 1966, *Michigan State University*; M.A., 1972, Ph.D., 1975, *University of Chicago*. Specialties: Psychiatric Rehabilitation, Program Evaluation.
- Borden, Victor, M. H., *Associate Professor of Psychology and Director of Information Management and Institutional Research* (1992); B.A., 1979, *University of Rochester*; M.S., 1983, Ph.D., 1987, *University of Massachusetts-Amherst*. Specialties: Statistical Methods, Multivariate Analysis, Secondary Data Analysis, Student Life Research.
- Boschmann, Erwin, *Associate Vice President for Distributed Education and Professor of Chemistry* (1968); B.A., 1963, *Bethel College (Kansas)*; M.S., 1965, Ph.D., 1968, *University of Colorado*. Specialties: General Chemistry, Inorganic Chemistry, Bioinorganic Chemistry.
- Boukai, Ben Zion, *Chairperson and Professor of Mathematical Sciences* (1990); B.A., 1983, M.A., 1985, *University of Haifa, Israel*; Ph.D., 1988, *State University of New York at Binghamton*. Specialties: Statistical Theory, Applied Statistics, Applied Probability.
- Boyd, Donald, *Research Professor of Chemistry* (1986); B.S., 1963, *Pennsylvania State University*; Ph.D., 1968, *Harvard University*. Specialty: Organic Chemistry.
- Breen, John J., *Assistant Professor of Chemistry* (1992); B.S., 1981, *Providence College*; Ph.D., 1988, *Pennsylvania State University*. Specialties: Analytical Chemistry, Surface Probe Microscopy.
- Brenner, Mark L., *Professor of Biology, Vice Chancellor* (1998); B.S., 1964, *University of Massachusetts*; M.S., 1965, *University of Massachusetts*; Ph.D., 1970, *Michigan State University*. Specialties: Horticulture, Landscape Architecture.
- Bringle, Robert Gordon, *Professor of Psychology* (1974); B.A., 1969, *Hanover College*; M.S., 1972, Ph.D., 1974, *University of Massachusetts*. Specialties: Social Psychology, Program Evaluation, Methodology.
- Brothers, Timothy S., *Adjunct Associate Professor of Geology* (1984); B.A., 1978, *University of California, Davis*; M.A., 1981, Ph.D., 1985, *University of California, Los Angeles*. Specialties: Biogeography, Human Impacts on Vegetation.
- Bukhres, Omran A., *Professor of Computer Science* (1995); B.S., 1984, *Indiana University*; M.S., 1986, *University of Dayton*; Ph.D., 1990, *North Dakota State University*. Specialties: Distributed Database Systems; Mobile Computing Applications, Workflow Management Systems, Database Issues in Chem-Bioinformatics.
- Burkinshaw, Owen, *Professor of Mathematical Sciences*, (1972); B.S., 1966, M.S., 1968, *Ohio University*; Ph.D., 1972, *Purdue University*. Specialty: Functional Analysis.
- Chandrasekhar, Srinivasan, *Adjunct Assistant Professor of Biology* (1987); B.Sc., 1970, M.S., 1973, *University of Madras, India*; M.Sc., 1977, Ph.D., 1981, *State University of New York at Albany*. Specialty: Developmental Biology.
- Chernoff, Ellen A. G., *Associate Professor of Biology* (1986); B.A., 1973, Ph.D., 1978, *University of Chicago*. Specialties: Developmental Biology, Neural Regeneration.
- Chin, Raymond C. Y., *Professor of Computer and Information Science* (1990); B.A.E., 1962, M.A.E., 1964, *Rensselaer Polytechnic Institute*; Ph.D., 1970, *Case Western Reserve University*. Specialties: Parallel Solution of Partial Differential Equations, Asymptotic-numerical Methods.
- Clack, James W., *Assistant Professor of Biology* (1990, *IUPUI Columbus*); B.A., 1974, *Indiana University*; Ph.D., 1982, *Purdue University*. Specialties: Neurobiology, Visual Physiology.
- Cohen, Michael R., *Adjunct Professor of Geology* (1968); B.S., 1960, *City University of New York*; M.A., 1963, *Columbia University*; M.S.T., 1964, Ph.D., 1968, *Cornell University*. Specialties: Science and Environmental Education.
- Cooley, Judy E., *Lecturer in Mathematical Sciences* (1999); B.A., 1975, M.S., 1979, *Indiana State University*. Specialty: Mathematics Education.
- Crowell, Dring N., *Associate Professor of Biology* (1991); B.S., 1981, *Illinois State University*; Ph.D., 1987, *University of Wisconsin*. Specialty: Molecular Biology.
- Crowell, Pamela L., *Associate Professor of Biology* (1993); B.A., 1981, *Augsburg College*; Ph.D., 1988, *University of Wisconsin-Madison*. Specialties: Cancer Biology, Pharmacology.
- Cutshall, Theodore W., *Associate Professor Emeritus of Chemistry* (1961); B.S.Ch.E., 1949, *Purdue University*; M.S., 1959, Ph.D., 1964, *Northwestern University*. Specialty: Organic Chemistry.
- Davis, Robert, *Professor Emeritus of Psychology* (1976); B.S., 1958, *Salisbury State University*; M.Ed., 1962, *Pennsylvania State University*; Ed.D., 1968, *University of Maryland*. Specialties: Rehabilitation Psychology, Family Therapy.
- de Caprariis, Pascal, *Associate Professor of Geology* (1978); B.S., 1964, M.S., 1967, *Boston College*; Ph.D., 1973, *Rensselaer Polytechnic Institute*. Specialty: Quantitative Hydrology.
- Decca, Ricardo S., *Assistant Professor of Physics* (2000); M.S., 1988, *Universidad Nacional de Cordoba and Instituto Balseiro, Universidad Nacional de Cuyo, Argentina*; Ph.D., 1994, *Instituto Balseiro, Universidad Nacional de Cuyo, Argentina*. Specialties: Condensed Matter, Near-Field Scanning Optical Microscopy (NSOM).
- Devine, Dennis J., *Assistant Professor of Psychology* (1996); B.S., 1990, *University of Illinois, Urbana-Champaign*; M.A., 1993, Ph.D., 1996, *Michigan State University*. Specialties: Expert-Novice Differences, Group Decision Making, Team Selection and Training.
- Dey, Tamal Krishna, *Adjunct Assistant Professor of Computer and Information Science* (1992); B.E., 1985, *Jadavpur University, India*; M.E., 1987, *Indian Institute of Science, India*; Ph.D., 1991, *Purdue University*. Specialties: Analysis of Algorithms, Computational Geometry, Computer Graphics.
- Dubin, Paul, *Professor of Chemistry* (1981); B.S., 1962, *City University of New York*; Ph.D., 1970, *Rutgers University*. Specialties: Analytical Chemistry, Polymer Chemistry.
- Dykstra, Clifford E., *Chancellor's Professor of Chemistry* (1990); B.S. (Chemistry) and B.S. (Physics), 1973, *University of Illinois*; Ph.D., 1976, *University of California, Berkeley*. Specialties: Theoretical and Computational Chemistry.
- Ernst, Michael D., *Assistant Professor of Mathematical Sciences* (1999); B.A. (Mathematics) and B.A. (Statistics), 1992, *St. Cloud State University*; M.S., 1994, Ph.D., 1997, *Southern Methodist University*. Specialties: Nonparametric Statistics, Statistical Graphics, Statistical Education.
- Evans, Jovier D., *Assistant Professor of Psychology*, (1998); B.A., 1989, *Emory University*; M.S., 1991, *University of Miami*, Ph.D., 1995, *University of Miami*. Specialties: Neuropsychology, Health Psychology.
- Evenbeck, Scott E., *Associate Vice Chancellor for Undergraduate Education, Dean of University College, and Associate Professor of Psychology* (1972); A.B., 1968, *Indiana University*; M.A., 1971, Ph.D., 1972, *University of North Carolina*. Specialties: Social Psychology, Program Evaluation, Methodology.
- Fang, Shiao-fen, *Assistant Professor of Computer Science* (1996); B.S., 1983, M.S., 1986, *Zhejiang University, China*; Ph.D., 1992, *University of Utah*. Specialties: Computer Graphics and Visualization.
- Fastenau, Philip S., *Associate Professor of Psychology* (1996); B.A., 1984, *Concordia Teachers College*; M.A., 1988, *Appalachian State University*; Ph.D., 1994, *Michigan State University*. Specialties: Clinical Neuropsychology, Test Construction.
- Felsten, Gary, *Associate Professor of Psychology* (1993, *IUPUI Columbus*); B.A., 1974, *Cornell University*; M.S., 1977, Ph.D., 1979, *Purdue University*. Specialty: Health Psychology.
- Fetterman, J. Gregor, *Chairperson and Professor of Psychology* (1989), B.A., 1973, *Alma College*; M.A., 1977, *Hollins College*; Ph.D., 1982, *University of Maine*. Specialty: Learning.

- Fife, Wilmer K., *Professor of Chemistry (1971)*; B.S., 1955, *Case Institute of Technology*; Ph.D., 1960, *The Ohio State University*. Specialties: General Chemistry, Organic Chemistry, Biochemistry.
- Filippelli, Gabriel M., *Assistant Professor of Geology (1994)*; B.S., 1986, *University of California, Davis*; Ph.D., 1994, *University of California, Santa Cruz*. Specialties: Sedimentary Geochemistry, Paleoclimatology, Paleogeography, Paleoclimatology.
- Fisher, Timothy G., *Adjunct Assistant Professor of Geology (1996)*; B.Sc., 1987, *University of Alberta*; M.Sc., 1989, *Queen's University*; Ph.D., 1993, *University of Calgary*. Specialties: Glacial Geology, Glacial Sedimentology.
- Fleener, Don E., *Associate Professor Emeritus of Psychology (1966)*; B.S. (Ed), 1949, *Indiana Central College*; Ph.D., 1967, *Indiana University*. Specialties: Behavioral Medicine, Clinical Psychology, Developmental Psychology.
- Forsythe, Kelsey M., *Assistant Scientist (2001)*; B.S., 1992, *Truman State University*; Ph.D., 1998, *University of Illinois*. Specialties: Physical and Computational Chemistry.
- Fortier, Robert H., *Associate Professor Emeritus of Psychology (1966)*; B.S., 1947, Ph.D., 1952, *Western Reserve University*. Specialties: Child Psychology, Personality.
- Frankel, Michael L., *Professor of Mathematical Sciences (1984)*; M.S., 1971, *Novosibirsk State University, U.S.S.R.*; Ph.D., 1984, *Tel Aviv University, Israel*. Specialty: Applied Mathematics.
- Fricke, Gordon H., *Associate Dean for External Development, School of Science, and Associate Professor of Chemistry (1972)*; B.A., 1964, *Goshen College*; M.S., 1966, *State University of New York at Binghamton*; Ph.D., 1970, *Clarkson College of Technology*. Specialties: General Chemistry, Analytical Chemistry.
- Gavrin, Andrew D., *Associate Professor of Physics (1995)*; B.S., 1983, *Massachusetts Institute of Technology*; M.A., 1986, Ph.D., 1992, *The Johns Hopkins University*. Specialty: Materials Physics.
- Geller, William, *Associate Professor of Mathematical Sciences (1994)*; A.B., 1982, *Harvard University*; Ph.D., 1989, *University of California, Berkeley*. Specialty: Dynamical Systems.
- Ghosh, Swapna K., *Adjunct Associate Professor of Geology (1988)*; M.S., 1973, *University of Wisconsin, Milwaukee*; Ph.D., 1975, *Syracuse University*. Specialties: Geochemistry, Sedimentology, Environmental Chemistry.
- Goldberg, Carlos I., *Associate Professor Emeritus of Psychology (1969)*; B.S., 1961, *Brooklyn College*; M.A., 1964, Ph.D., 1969, *City University of New York*. Specialties: Social Psychology, Panic Disorder, Agoraphobia, Obsessive-Compulsive Disorder.
- Goodlett, Charles R., *Professor of Psychology (1993)*; B.S., 1977, *University of Kentucky*; M.A., 1981, Ph.D., 1983, *State University of New York at Binghamton*. Specialty: Biopsychology.
- Haitjema, Hendrick M., *Adjunct Associate Professor of Geology (part-time), School of Science, and Associate Professor of Public and Environmental Affairs, School of Public and Environmental Affairs (1989)*; M.S., 1976, *Delft University of Technology, Netherlands*; Ph.D., 1982, *University of Minnesota*. Specialties: Groundwater Mechanics, Groundwater Flow Modeling, Soil Mechanics.
- Hall, Robert D., *Professor of Geology (1974)*; B.S., 1963, *Purdue University*; M.S., 1966, *University of Colorado*; Ph.D., 1973, *Indiana University*. Specialties: Geomorphology, Environmental Geology, Quaternary Geology, Glacial Geology, Soils.
- Hanford, Peter V., *Professor Emeritus of Psychology (1960)*; B.S., 1952, M.S., 1953, Ph.D., 1958, *Pennsylvania State University*. Specialties: Experimental Analysis of Behavior, Motivation.
- Harris, Andrew J., *Lecturer in Computer and Information Science (1995)*; B.S., 1990, *Indiana University-Purdue University Indianapolis*. Specialties: General Computing, Computer Programming.
- Hazer, John T., *Associate Professor of Psychology (1975)*; B.A., 1970, *Miami University*; M.A., 1974, Ph.D., 1976, *Bowling Green State University*. Specialties: Industrial/Organizational Psychology, Human Resource Management.
- Heiman, Mark L., *Adjunct Assistant Professor of Biology (1996)*; B.A., 1974, *University of New Orleans*; Ph.D., 1978, *Louisiana State University Medical School*. Specialties: Physiology, Neuroendocrinology.
- Holladay, Susan R. H., *Lecturer in Chemistry (2002)*; B.S., 1990, *Miami University*; M.S., 1995, Ph.D., 2001, *Purdue University*. Specialty: Chemical Education.
- Huang, Jeffrey, *Assistant Professor of Computer Science (2000)*; B.S., 1986, *Kaohsiung Medical College, Taiwan, R.O.C.*; M.S.E., 1992, *Catholic University*; Ph.D., 1998, *George Mason University*. Specialty: Computer Vision, Pattern Recognition, Machine Learning, Multimedia.
- Its, Alexander R., *Professor of Mathematical Sciences (1993)*; M.S., 1974, Ph.D., 1977, *Leningrad State University, U.S.S.R.* Specialty: Mathematical Physics.
- Its, Elizabeth, *Lecturer in Mathematical Sciences (1997)*; M.S., 1975, Ph.D., 1980, *Leningrad State University, U.S.S.R.* Specialties: Mathematical Geophysics, Applied Mathematics.
- Ji, Ronghui, *Associate Professor of Mathematical Sciences (1986)*; B.S., 1982, *University of Science and Technology of China, China*; Ph.D., 1986, *State University of New York at Stony Brook*. Specialties: Operator Algebras, K-Theory.
- Johnson, Kathy E., *Associate Professor of Psychology (1993)*; B.S., 1987, M.S., 1989, *University of Massachusetts-Amherst*; Ph.D., 1992, *Emory University*. Specialty: Cognitive/Developmental Psychology.
- Juillerat, Florence, *Associate Professor of Biology (1966)*; B.S., 1962, M.S., 1967, Ph.D., 1974, *Purdue University*. Specialties: Cell Biology, Biology for Teachers, Biology for Nonmajors.
- June, Harry L., *Associate Professor of Psychology (1992)*; B.S., 1979, *South Carolina State College*; M.A., 1986, *University of the District of Columbia*; M.S., 1987, Ph.D., 1990, *Howard University*. Specialty: Behavioral Psychopharmacology.
- Kaminker, Jerome Alvin, *Professor of Mathematical Sciences (1973)*; B.A., 1963, *University of California, Berkeley*; M.A., 1965, Ph.D., 1968, *University of California, Los Angeles*. Specialties: Operator Algebras, K-Theory.
- Kaplan, Jerome I., *Professor Emeritus of Physics (1974)*; B.S., 1950, *University of Michigan*; Ph.D., 1954, *University of California, Berkeley*. Specialties: Condensed Matter, Solar Energy, Biological Physics.
- Keck, Robert William, *Professor of Biology (1972)*; B.A., 1962, M.S., 1964, *University of Iowa*; Ph.D., 1968, *The Ohio State University*. Specialty: Plant Physiology.
- Kemple, Marvin D., *Professor of Physics (1977)*; B.S., 1964, *Purdue University*; M.S., 1965, Ph.D., 1971, *University of Illinois*. Specialties: Magnetic Resonance, Biological Physics.
- Kleinhans, Frederick W., *Associate Professor of Physics and Adjunct Professor of Geology (1972)*; B.S., 1965, *University of Michigan*; Ph.D., 1971, *The Ohio State University*. Specialties: Biological Physics, Computational Physics.
- Kleyle, Robert M., *Professor of Mathematical Sciences (1973)*; B.A., 1960, *Duquesne University*; M.S., 1962, *University of Pittsburgh*; Ph.D., 1968, *Harvard University*. Specialty: Statistics.
- Klimek, Slawomir, *Associate Professor of Mathematical Sciences (1991)*; M.Sc., 1983, Ph.D., 1988, *Warsaw University, Poland*. Specialties: Mathematical Physics, Noncommutative Geometry.
- Kremer, John E., *Professor of Psychology (1975)*; B.A., 1966, *St. Meinrad College*; M.S., 1969, *University of Notre Dame*; M.S., 1974, Ph.D., 1975, *Loyola University*. Specialties: Clinical Psychology, Evaluating Teaching, Program Evaluation.
- Krishnan, Gary, *Adjunct Assistant Professor of Biology (1999)*; B.Sc., 1987, *University of Bombay*; M.Sc., 1989, *University of Bombay*; Ph.D., 1994, *Texas A & M University*. Specialty: Developmental Biology.
- Kroupa, Shenan L., *Lecturer in Psychology (2000)*; B.A., 1993, *University of Wisconsin-Madison*; M.S., 1996, Ph.D., 1999, *Purdue University*. Specialties: Developmental Psychology, Social Psychology.
- Kuczkowski, Joseph E., *Associate Dean for Academic Programs and Student Development, School of Science, and Professor of Mathematics (1966)*; B.S., 1961, *Canisius College*; M.S., 1963, Ph.D., 1968, *Purdue University*. Specialties: Semigroup Theory, Mathematics Education.
- Larter, Raima M., *Chairperson and Professor of Chemistry (1981)*; B.S., 1976, *Montana State University*; Ph.D., 1980, *Indiana University*. Specialty: Theoretical Physical Chemistry.
- Lauer, Joan B., *Associate Professor of Psychology (1973)*; A.B., 1964, Ph.D., 1973, *Indiana University*. Specialties: Clinical Psychology, Physiological Psychology, Learning.
- Lees, Norman Douglas, *Chairperson and Professor of Biology (1973)*; A.B., 1967, *Providence College*; Ph.D., 1973, *Northwestern University*. Specialties: Microbiology, Molecular Biology.
- Licht, Kathy J., *Assistant Professor of Geology (2000)*; B.S., 1992, *St. Norbert College*; M.S., 1995, Ph.D., 1999, *University of Colorado*. Specialty: Geomorphology.
- Lindsey, Greg H., *Adjunct Associate Professor of Geology (1996)*; B.A., 1977, *University of Illinois*; M.A. (*Environmental Studies*), 1987, *Northeastern Illinois University*; M.A. (*Geography and Environmental Engineering*), 1989, Ph.D., 1992, *The Johns Hopkins University*. Specialties: Environmental Planning and Policy, Environmental Science.

- Lipkowitz, Kenneth B., *Professor of Chemistry* (1976); B.S., 1972, *State University of New York College at Geneseo*; Ph.D., 1975, *Montana State University*. Specialties: Theoretical and Synthetic Organic Chemistry.
- Liu, Wei-min, *Associate Professor of Computer and Information Science* (1987); B.S., 1968, *Shanghai College of Mechanical and Electrical Engineering, China*; M.S., 1981, *Shanghai Institute of Biochemistry, China*; M.S., 1986, Ph.D., 1987, *Cornell University*. Specialties: Dynamical Systems Theory, Differential Equations, Biomathematics.
- Liu, Zhiqing, *Assistant Professor of Computer and Information Science* (1997); B.Eng., 1989, *Tsinghua University, Beijing*; M.S., 1992, Ph.D., 1995, *New York University*. Specialty: Computer Systems.
- Long, Eric C., *Associate Professor of Chemistry* (1991); B.S., 1984, *Albright College*; Ph.D., 1989, *University of Virginia*. Specialties: Biological Chemistry, Peptide and Metallopeptide-DNA Interactions.
- Luke, Jon, *Associate Professor of Mathematical Sciences and Associate Professor of Computer and Information Science* (1975); B.S., 1962, M.S., 1963, *Massachusetts Institute of Technology*; Ph.D., 1966, *California Institute of Technology*. Specialty: Applied Mathematics.
- Malik, David J., *Professor of Chemistry* (1980); B.S., 1968, M.S., 1969, *California State University*; Ph.D., 1976, *University of California, San Diego*. Specialties: Theoretical Physical Chemistry, Chemical Physics.
- Marrs, Kathleen, *Assistant Professor of Biology* (1998); B.A., 1984, *Illinois Wesleyan University*; Ph.D., 1990, *University of Illinois-Chicago*. Specialties: Science Teaching, Plant Molecular Biology.
- McGrew, John H., *Associate Professor of Psychology* (1991); B.M.E., 1977, *GMI Engineering and Management Institute*; M.S.E., 1977, *University of Michigan*; Ph.D., 1991, *Indiana University*. Specialties: Psychiatric Rehabilitation, Health Psychology.
- McIntyre, John A., *Adjunct Professor of Biology* (1987); A.B., 1966, *Rockford College*; Ph.D., 1971, *Wake Forest University*. Specialties: Immunology, Reproductive Biology.
- Meiere, Forrest T., *Professor Emeritus of Physics* (1969); B.S. (Physics) and B.S. (Math), 1959, *Carnegie-Mellon University*; Ph.D., 1964, *Massachusetts Institute of Technology*. Specialties: High Energy Physics, Biological Physics.
- Metzner, Barbara S., *Adjunct Assistant Professor of Psychology* (1986); A.B., 1962, M.S., 1964, *Indiana University*; B.A., 1979, *Purdue University*; Ed.D., 1983, *Indiana University*. Specialty: Educational Research.
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- Mirsky, Arthur, *Professor Emeritus of Geology* (1967); B.A., 1950, *University of California, Los Angeles*; M.S., 1955, *University of Arizona*; Ph.D., 1960, *The Ohio State University*. Specialties: Urban Geology, Environmental Geology, Geowriting, Evolution of the Earth.
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- Molnar, Bob, *Lecturer in Computer and Information Science* (2000); B.A., 1994, *Indiana University, Bloomington*; B.S., 1996, *Indiana University, Bloomington*. Specialties: General Computing, Web Development, Multimedia.
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- Novak, Gregor M., *Professor Emeritus of Physics* (1964); M.S., 1964, *University of Chicago*; Ph.D., 1975, *Indiana University*. Specialties: Physics Education, Mathematical Physics.
- Nurok, David, *Associate Professor of Chemistry* (1978); B.Sc., 1959, Ph.D., 1966, *University of Capetown, South Africa*. Specialties: Analytical Chemistry, Chromatography.
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- Olson, Andrew M., *Associate Professor of Computing and Information Science* (1984); B.S., 1959, *University of Wyoming*; M.S., 1961, *University of Wisconsin*; D.Sc., 1969, *Washington University*. Specialties: Computational Mathematics, Advanced Computing Environments, Software Engineering.
- Ou, Zhe-Yu (Jeff), *Associate Professor of Physics* (1992), B.S., 1984, *Beijing University, China*; M.S., 1986, Ph.D., 1990, *University of Rochester*. Specialties: Experimental Physics, Quantum Optics.
- Pachut, Joseph E., Jr., *Associate Professor of Geology* (1978), B.A., 1972, *State University of New York College at Oneonta*; Ph.D., 1977, *Michigan State University*. Specialties: Invertebrate Paleontology, Paleocology, Geobiology, Biometrics, Evolution of the Earth.
- Palakal, Mathew J., *Chairperson and Professor of Computer and Information Science* (1988); B. Comp. Sci., 1979, M. Comp. Sci., 1983, Ph.D., 1987, *Concordia University, Canada*. Specialty: Artificial Intelligence, Speech Recognition, Pattern Recognition, Artificial Neural Networks.
- Patterson, Richard R., *Associate Professor of Mathematical Sciences and Associate Professor of Computer and Information Science* (1974); B.A., 1961, *DePauw University*; Ph.D., 1966, *University of California, Berkeley*. Specialty: Geometric Modeling.
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- Penna, Michael A., *Professor of Mathematical Sciences and of Computer and Information Science* (1973); B.A., 1967, *Union College*; A.M., 1968, Ph.D., 1973, *University of Illinois*. Specialty: Differential Geometry.
- Perry, Allen O., *Adjunct Professor of Geology* (2001); B.S., 1961, *Indiana University*; M.S., 1972; Ph.D., 1977, *Purdue University*. Specialties: Environmental Geology, Engineering Geology, Processing, and Mined Land Reclamation.
- Petolino, Joseph E., *Adjunct Assistant Professor of Biology* (1994); B.A., 1976, M.S., 1978, *Rutgers University*; Ph.D., 1982, *University of Maryland*. Specialties: Biotechnology, Plant Genetics.
- Pflanzer, Richard Gary, *Associate Professor of Biology, School of Science, and Associate Professor of Physiology and Biophysics, School of Medicine* (1969); A.B., 1964, Ph.D., 1969, *Indiana University*. Specialty: Medical Physiology.
- Podgorski, Krzysztof, *Associate Professor of Mathematical Sciences* (1994); M.Sci., 1986, Ph.D., 1991, *Technical University of Wrocław, Poland*; Ph.D., 1993, *Michigan State University*. Specialties: Mathematical Statistics, Applied Probability.
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- Rajecki, D. W., *Professor of Psychology* (1980); B.A., 1968, *Kent State University*; Ph.D., 1972, *University of Michigan*. Specialty: Attitudes and Public Opinion.
- Randall, Stephen K., *Associate Professor of Biology* (1990); B.S., 1976, *University of Connecticut*; Ph.D., 1982, *Indiana University*. Specialties: Biochemistry, Cell Biology.
- Rangazas, Sharon Z., *Lecturer in Mathematical Sciences* (1989); B.S., 1984, M.A.T., 1987, *Indiana University*. Specialty: Curriculum Development.
- Rao, B. D. Nageswara, *Chairperson and Professor of Physics* (1978); B.S., 1955, M.S., 1956, *Andhra University, India*; Ph.D., 1961, *Aligarh Muslim University, India*. Specialties: Nuclear Magnetic Resonance, Biological Physics.
- Reid, William H., *Adjunct Professor of Mathematical Sciences* (1989); B.S., 1949, M.S., 1951, *University of California, Berkeley*; Ph.D., 1955, Sc.D., 1968, *Cambridge University, U.K.* Specialty: Applied Mathematics.
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- Rigdon, Robert, *Associate Chairperson and Associate Professor of Mathematical Sciences* (1975); A.B., 1965, *Princeton*; Ph.D., 1970, *University of California, Berkeley*. Specialty: Algebraic Topology.
- Roberts, Michele, *Lecturer in Computer Science* (1998); B.S., 1976, *Central College*; M.S., 1978, *Indiana State University*; M.B.A., 1994, *Indiana Wesleyan University*. Specialties: Application Courses for Non-Majors, Web Authoring, Instructional System Design.
- Robinson, Bret A., *Adjunct Assistant Professor of Geology* (1991); B.A., 1984, *Indiana University*; M.S., 1986, Ph.D., 1991, *Southern Illinois University*. Specialties: Fluvial Geomorphology, Hydrogeology.
- Rosenberg, Gary D., *Associate Professor of Geology* (1979); B.S., 1966, *University of Wisconsin*; Ph.D., 1972, *University of California, Los Angeles*. Specialties: Biomineralization, Evolution, Paleobiochemistry, Historical Geology.
- Rothman, Neal J., *Professor Emeritus of Mathematical Sciences* (1982); B.S., 1951, *University of Delaware*; M.S., 1954, *Tulane University*; Ph.D., 1958, *Louisiana State University*. Specialties: Functional Analysis, Harmonic Analysis.
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- Schild, John H., *Adjunct Assistant Professor of Biology* (1999); B.S., 1983, *Case Western Reserve University*; M.S., 1988, *Case Western Reserve University*; Ph.D., 1994, *Rice University*. Specialty: Sensory Electrophysiology, Computational Neuroscience.
- Schoepp, Darryle D., *Adjunct Assistant Professor of Biology* (1989); B.S., 1978, *North Dakota State University*; Ph.D., 1982, *West Virginia University*. Specialty: Pharmacology.
- Schultz, Franklin A., *Professor of Chemistry* (1987); B.S., 1963, *California Institute of Technology*; Ph.D., 1967, *University of California, Riverside*. Specialties: Analytical Chemistry, Electrochemistry.
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- Sen, Stephanie E., *Associate Professor of Chemistry* (1992); B.A., 1984, *Bryn Mawr College*; Ph.D., 1989, *State University of New York at Stony Brook*. Specialties: Organic Chemistry, Biological Chemistry.
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- Shen, Zhongmin, *Associate Professor of Mathematical Sciences* (1992); B.S., 1983, *University of Science and Technology of China, China*; M.S., 1986, *Academia Sinica, China*; Ph.D., 1990, *State University of New York at Stony Brook*. Specialty: Differential Geometry.
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- Smith, Rosamund C., *Adjunct Assistant Professor of Biology* (1991); B.A., 1979, *Cambridge University, U.K.*; Ph.D., 1983, *Oxford University, U.K.* Specialty: Developmental Biology.
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- Sunderwirth, Stanley, *Professor of Chemistry* (1988, *IUPUI Columbus*); B.A., 1951, *Tarkio College*; Ph.D., 1955, *The Ohio State University*. Specialties: General Chemistry, Organic Chemistry.
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Contents

539 School of Social Work

- 539 Mission Statement
- 539 Teaching
- 539 Scholarship
- 539 Service
- 539 Policy on Nondiscrimination

539 Undergraduate Programs

- 539 Associate of Science in Human Services
- 539 Bachelor of Social Work
 - 540 Admission Requirements
 - 540 Educational Requirements
 - 540 Selected Educational Policies

541 Graduate Programs

- 541 Master of Social Work
 - 541 Admission Requirements
 - 541 International Students
 - 541 Transfer Students
 - 541 Non-M.S.W. Students
 - 541 M.S.W. Programs of Study—Indianapolis
 - 541 Two-Year Full-Time Program
 - 541 Part-Time Day Program
 - 541 Part-Time Saturday Program
 - 542 Part-Time Evening Program
 - 542 Advanced Standing Program
 - 542 Master of Social Work Curriculum
 - 542 Foundation Curriculum
 - 542 Concentration Curriculum
 - 542 Educational Requirements
 - 542 Ph.D. Program
 - 542 Admission Requirements
 - 542 Application Deadlines
 - 543 Educational Requirements
 - 543 Qualifying Examination Process
 - 543 Admission to Candidacy
 - 543 Research Proposal
 - 543 Final Examination
 - 543 Pre-Doc Exploration Option
 - 543 Certificates
 - 544 Professional and Academic Integrity
 - 544 Students' Rights and Responsibilities
 - 544 Academic and Scholarly Guidelines
 - 544 Electronic Communication
 - 544 Student Misconduct
 - 545 Indiana University School of Social Work Policy
 - Regarding Individuals Convicted of Sex Offenses Against Children
 - Policy Statement
 - Procedure

545 Student Services—Indianapolis Campus

- 545 Career Information
- 545 Financial Assistance
- 545 Student Organizations
- 546 Students with Disabilities

546 Courses of Instruction

- 546 B.S.W. Courses
- 547 M.S.W. Courses
- 547 Ph.D. Courses

548 School Alumni

548 School of Social Work Administration

548 Faculty

- 549 Faculty Emeriti
- 549 Associate Faculty
- 549 Staff

550 Agencies Participating in Field Instruction

School of Social Work

Indiana University has a long history of providing preparation for entry into social work practice. Courses in this area were offered in 1911 through the Department of Economics and Sociology. Between 1911 and 1944, various administrative and curricular changes were put into effect, and degree programs at both the undergraduate and graduate levels were offered. In 1944, the Indiana University Division of Social Service was established by action of the Trustees of Indiana University. The organizational status was changed in 1966 when the Graduate School of Social Service was created. In 1973 the name was changed to School of Social Service in recognition of the extent and professional nature of the school's graduate and undergraduate offerings. It became the School of Social Work in 1977 in order to reflect more clearly its identification with the profession.

The school provides opportunities for study leading to the associate, baccalaureate, master's, and Ph.D. degrees. The Associate of Science (A.S.) program prepares students for paraprofessional practice; the Bachelor of Social Work (B.S.W.) program prepares students for generalist social work practice; the Master of Social Work (M.S.W.) program prepares graduate students for advanced social work practice in an area of specialization; and the Ph.D. program prepares professional social workers for leadership roles in research, education, and policy development.

Although the degree programs vary in their emphases and levels of complexity, the school's curricula embody features that are systemic in their educational effects:

1. The total curriculum articulates the relationship of the undergraduate and graduate levels as components of a continuum in education for social service;
2. The program of instruction provides opportunity for a range of experiences in substantive areas of interest to students and of importance to society;
3. The program focuses on problem-solving and strength-enhancing experiences involving the classroom, the learning resources laboratory, and field experience;
4. Excellent library and computer lab resources make social work students effective users of social science information;
5. An exploration of educational procedures and arrangements optimize effective training. This includes institutional self-study of the entire curriculum as well as the exploration of specific educational tools, as in the audiovisual center.

Although the school's major location is in Indianapolis, courses or programs are also offered on IU's campuses at Bloomington, Gary (Northwest), Kokomo, Richmond (East), South Bend, and at the Columbus center. Reference to some of these offerings will be made in the text that follows.

Graduates of the school move into a broad variety of social service settings, including those concerned with aging, family and child welfare, corrections, mental

and physical health, and adjustment in schools. In anticipation of such professional activities, the school provides field instruction placements throughout the state where students engage in services to individuals, groups, families, and communities or function in planning and management roles.

Both the Bachelor of Social Work and Master of Social Work programs are accredited by the Council on Social Work Education (CSWE). The school is a member of the International Association of Schools of Social Work. The school's administrators are active participants in the National Association of Deans and Directors of Schools of Social Work, the Association of Baccalaureate Social Work Program Directors, and the Group for the Advancement of Doctoral Education.

Mission Statement

Adopted by action of the faculty on February 8, 1995.

The mission of the Indiana University School of Social Work is to educate students to be effective and knowledgeable professional social workers prepared for practice in the twenty-first century. Such practitioners are committed to the alleviation of poverty, oppression, and discrimination. The school is dedicated to the enhancement of the quality of life for all people, particularly the citizens of Indiana, and to the advancement of just social, political, and economic conditions through excellence in teaching, scholarship, and service. Within the context of a diverse, multicultural, urbanized, global, and technologically oriented society, the school prepares social workers who will shape solutions to a wide range of interpersonal and social problems by developing and using knowledge critically while upholding the traditions, values, and ethics of the social work profession.

Teaching

The teaching mission is to educate students to become professional social workers equipped for a lifetime of learning, scholarship, and service. Graduates embrace person-in-environment and strengths perspectives that are linked to the welfare of individuals, families, groups, organizations, and communities. They learn to keep abreast of advances in knowledge and technology, be self-reflective, and apply best practice and accountable models of intervention. The school prepares social work practitioners and scholars ready to assume leadership roles at the B.S.W., M.S.W., and Ph.D. levels.

Scholarship

The scholarship mission includes the discovery, integration, application, dissemination, and evaluation of client-centered and solution-focused knowledge for and with social work professionals and other consumers. Innovative forms of scholarship are encouraged in developing knowledge for use in practice, education, and service concerning social needs and social problems.

Service

The service mission is dedicated to the promotion of the general welfare of all segments of society. Service includes work in the school, university, profession, and community and reflects the school's expertise in

teaching, scholarship, and social work practice. Service in the interest of persons at greatest risk is consistent with the social work profession's attention to social justice.

Policy on Nondiscrimination

Based on the tradition of the social work profession and consistent with Indiana University's Equal Opportunity Policy, the Indiana University School of Social Work affirms and conducts all aspects of its teaching, scholarship, and service activities without discrimination on the basis of race, color, gender, socioeconomic status, marital status, national or ethnic origin, age, religion or creed, disability, and political or sexual orientation.

The School of Social Work has a strong commitment to diversity and nondiscrimination. Indeed, diversity is celebrated as a strength. This perspective is demonstrated by the composition of its faculty and student body, curriculum content, and recruitment and retention activities; by participation in university committees dealing with oppressed populations; by numerous service activities, including advocacy on behalf of the disadvantaged; and by its selection of field practicum sites.

Undergraduate Programs

Associate of Science in Human Services

This program is offered by the Indiana University School of Social Work through Indiana University East. The degree prepares students for paraprofessional employment; i.e., its purpose is to enable students to develop skills at the technician level to assist other professionals in community settings. Within the associate degree, concentrations include child care, institutional life, neighborhood work, public housing, rehabilitation, homemaker services, and so forth. For an application form and information about admission to this program, contact:

Edward Fitzgerald, M.S.W., J.D.
Indiana University East
2325 Chester Blvd.
Richmond, IN 47374-1289
Telephone: (765) 973-8222

Bachelor of Social Work

This four-year degree program prepares students for generalist social work practice. It helps students develop the competence to apply knowledge, values, and skills to practice with individuals, small groups, organizations, and communities. The program also prepares students for graduate education. The B.S.W. equips the practitioner to work with people who are encountering problems related to personal or social circumstances. In addition, highly qualified graduates may apply for advanced standing to the Indiana University School of Social Work or other M.S.W. programs nationwide.

Following a minimum of two postgraduate years of supervised social work practice experience, B.S.W. graduates of Indiana University are eligible to apply for licensure by the state of Indiana. Upon receipt of a complete application and a passing score on the standardized examination, the Indiana State Health Professions Bureau designates the B.S.W. graduate a Licensed Social Worker (L.S.W.).

The required social work courses at the freshman, sophomore, and junior levels are offered on the Indianapolis (IUPUI), Bloomington, and Richmond (East) campuses. A few social work courses are offered on the Columbus and Kokomo campuses. The senior-level courses are offered only on the Indianapolis and Richmond campuses. Students in the B.S.W. program must complete all sophomore and junior social work courses and achieve senior standing before enrolling in the senior social work courses. Bloomington students should expect to spend their senior year on the Indianapolis campus in full-time residence.

For specific information regarding the B.S.W. program, contact the appropriate campus below:

B.S.W. Program
School of Social Work
IUPUI
Education/Social Work Building 4138
902 W. New York Street
Indianapolis, IN 46202-5154
Telephone: (317) 274-6705
Web: iussw.iupui.edu

School of Social Work
Indiana University
1127 E. Atwater Avenue
Bloomington, IN 47401-3701
Telephone: (812) 855-4427
Web: www.indiana.edu/~socwork

Human Services Program and B.S.W. Program
Indiana University East
2325 Chester Boulevard
Richmond, IN 47374-1289
Telephone: (765) 973-8222

Admission Requirements

Enrollment in the B.S.W. program requires formal admission to the School of Social Work. The following are the minimum requirements for consideration for admission to the program:

1. Regular admission to the university.
2. Completion of a minimum of 12 credit hours. Although we encourage early application, advanced students may also apply.
3. Satisfactory completion (grade of C or higher) of the required course S141 Introduction to Social Work.
4. A cumulative grade point average (GPA) of 2.5 on a 4.0 scale.
5. Evidence of characteristics or potential required for competent social work practice as defined in the mission statement of the school. Such evidence may be derived from application materials, letters of reference, pertinent work or volunteer experience, and performance in the introductory course.

Applicants have a priority date of **April 1**. BSW applications received (not postmarked) by the priority date will receive written decision notification by May 31. All applications received after the priority date will be considered, as space is available.

Admission information may be obtained from:

B.S.W. Admissions
School of Social Work
IUPUI
Education/Social Work Building 4138
902 W. New York Street
Indianapolis, IN 46202-5154
Telephone: (317) 274-6705
Web: iussw.iupui.edu
E-mail: kabrown@iupui.edu

Educational Requirements

A total of 122 credit hours is required for the B.S.W. degree. In addition to School of Social Work requirements and electives, the following outlines general liberal arts requirements:

General Requirements (8 courses)

1. English Composition (2 courses)
ENG W131 Elementary Composition I
ENG W231 Professional Writing Skills
2. Modern American History
HIST H106 American History II
3. Two courses designated arts and humanities from the following departments:
Afro-American Studies
American Sign Language
Communications and Theatre
English (excluding the basic composition course)
Fine Arts
Folklore
Foreign Languages and Cultures (100 level and above)
History
Music (non-performance courses)
Philosophy
Religious Studies
Women's Studies
4. Human Biology (1 course) from the following:
BIOL N200 The Biology of Women
PSY B105 Psychology as a Biological Science
5. Mathematics and Physical Sciences (2 courses)
Computer Science. On the IUPUI campus, it is strongly recommended that students take SWK S300 Computer Technology for Social Work
Select one course from the following departments
Astronomy
Chemistry
Geology
Mathematics (110 or higher)
Physics
Physical Geography
Statistics (strongly recommended)

Supportive Area Requirements (6 courses)

1. POLS Y103 Introduction to American Politics
2. ECON E101 Survey of Current Economic Issues and Problems, E201 Introduction to Microeconomics, or E202 Introduction to Macroeconomics
3. SOC R00 Introduction to Sociology
4. ANTH A104 Cultural Anthropology

5. PSY B104 Psychology as a Social Science
6. PSY B380 Abnormal Psychology or PSY B424 Theories of Personality

Social Work Requirements (16 courses)

Select from the following:

- S100 Understanding Diversity in a Pluralistic Society (3 cr.)
- S141 Introduction to Social Work (3 cr.)
- S221 Human Behavior and Social Environment I: Individual Functioning (3 cr.)
- S231 Generalist Social Work Practice I: Theory and Skills (3 cr.)
- S251 Emergence of Social Services (3 cr.)
- S322 Human Behavior and Social Environment II: Small Group Functioning (3 cr.)
- S323 Human Behavior and Social Environment III: Community and Organizational Functioning (3 cr.)
- S332 Generalist Social Work Practice II: Theory and Skills (3 cr.)
- S352 Social Service Delivery Systems (3 cr.)
- S371 Social Work Research (3 cr.)
- S381 Social Work Practicum I (3 cr.)
- S400 Practicum Seminar (1 cr.)
- S433 Generalist Social Work Practice III: Theory and Skills (3 cr.)
- S442 Practice-Policy Seminar in Fields of Practice (2 courses, 3 cr. each)
- S472 Practice Evaluation (3 cr.)
- S482 Social Work Practicum II (5 cr.)

Selected Educational Policies

For continuance in and graduation from the program, students are required (1) to maintain a minimum cumulative GPA of 2.5 in all letter-graded courses, (2) to maintain a minimum cumulative GPA of 2.5 (or its equivalent) in all required social work courses, (3) to attain a minimum grade of C (2.0) or Satisfactory in each required social work course, and (4) to carry out professional activity in conformity with the values and ethics of the profession.

In the event of failure to meet such requirements, students will be ineligible to continue in the program. Such students are encouraged to consult with their faculty advisor regarding realistic planning for the future, including the right to petition for administrative review. Detailed descriptions of student continuation policies are in the *B.S.W. Student Handbook* (iussw.iupui.edu).

Repeated Courses A course in which a lower than acceptable grade is attained must be repeated or a comparable course substituted that has been approved by the School of Social Work faculty. Required social work courses may be repeated only after the student is reinstated in the program with permission from the school.

Pass/Fail Grades Students can take a maximum of four non-social work elective courses as Pass/Fail. All general requirements and supportive area requirements need a letter grade. All required social work courses receive a letter grade except for S482 Practicum II, which is graded as Satisfactory/Fail.

Courses by Correspondence A maximum of six courses taken by correspondence may be applied toward completion of the B.S.W. degree requirements.

Of these, no more than four courses can be allowed in the general requirements and no more than two courses in the supportive area requirements.

Liability Insurance Students are required to carry professional liability insurance. Under the school's blanket policy, the cost of insurance is included in the student's practicum course fee.

Credit for Life Experience Academic credit for life experience and previous work experience is not given in whole or in part toward the social work degree.

Graduate Programs

Master of Social Work

In recognition of the time and geographic constraints of many students who seek professional social work education, the Indiana University School of Social Work offers 6 programs of study leading to the 60 credit hour M.S.W. degree. The Indianapolis campus offers a two-year full-time program, a three-year part-time weekday program, a three-year part-time evening program, a three-year part-time Saturday program, and an Advanced Standing Program. (The Advanced Standing Program is designed for students with a strong academic record who have earned a Bachelor of Social Work (B.S.W.) degree, within five years of their admission date, from a program accredited by the Council of Social Work Education.) Indiana University South Bend offers a three-year part-time evening program. Indiana University Northwest offers a four-year part-time program.

The general intent of the programs is preparation for advanced social work practice. In addition to generic knowledge and skills, the programs provide an opportunity for development of special competence in interpersonal practice or MACRO Practice. (MACRO is an acronym for Management/Administration, Advocacy, Community, Research/Evaluation and Organization.) Educational resources for students in the program include a substantial library, an audiovisual center, student computer modules, and diversified field instruction settings throughout the state.

Admission Requirements

Professional social work education requires students at the master's level to undertake a rigorous program of classroom and practice work. The Indiana University School of Social Work seeks to admit individuals who have demonstrated competency though previous academic work, professional achievements, and volunteer commitments. A strong commitment to social justice and service to others should be evident in the application.

Admission information for all of the M.S.W. programs may be obtained from:

M.S.W. Admissions
IUPUI School of Social Work
Education/Social Work Building 4134
902 W. New York Street
Indianapolis, IN 46202-5154
Telephone: (317) 274-6705
Web: iussw.iupui.edu
E-mail: rbrock@iupui.edu

Division of Social Work
IU Northwest
3400 Broadway
Gary, IN 46408-1197
Telephone: (219) 980-7111
Web: www.iun.edu/~socialwk

Master of Social Work
Indiana University South Bend
P.O. Box 7111
South Bend, IN 46634-7111
Telephone: (219) 237-4880
Web: www.iusb.edu/~socw
E-mail: msw@iusb.edu

Enrollment in the M.S.W. program requires official admission to the Indiana University School of Social Work. A limited number of students are admitted each year. The following items are the minimum requirements for consideration for admission:

1. An earned bachelor's degree from an accredited college or university.
2. Evidence of course work in liberal arts.
3. Successful completion of a minimum of six courses in social or behavioral sciences, as defined in the application packet.
4. Successful completion of a course in statistics.
5. Successful completion of a course in research methods.
6. Successful completion of a course in human biology.
7. An earned cumulative undergraduate grade point average (GPA) of at least 3.0 on a 4.0 scale.
8. Submission of the completed application packet by the due date.

Applications are available in early August of the year preceding admission. Information pertaining to the deadlines, requirements, and program details can be found in the application packet. Applicants can apply to only one location and one specific program. All applicants are encouraged to submit applications as soon as possible and well before the final application priority date. The M.S.W. admissions committee will make all decisions and notify students in early spring. Applications are evaluated on the basis of the eight criteria outlined above. Admission is competitive and the instructional resources of the school determine total enrollment.

International Students Applicants who are not citizens of the United States should apply as early as possible preceding the fall in which they wish to enter. They must fill out the international application and the Indiana University School of Social Work application by the posted deadlines. They also must provide proof of their ability to pay fees and support themselves adequately during the period of their study and,

through examinations designated by the school, must demonstrate an ability to comprehend, write, and speak English at an acceptable level.

International students applying to study at IUPUI should request an international application from the following address:

Office of International Affairs
IUPUI
620 Union Drive, Room 207
Indianapolis, IN 46202-5167
Telephone: (317) 274-7294

Transfer Students A limited number of transfer students from other accredited M.S.W. programs may be accepted each year. Master of Social Work students interested in transferring to Indiana University must complete an application for admission to the program. Upon receipt of the completed application, the M.S.W. program director and the chair of the Admissions Committee will review the materials and decide if the applicant will be accepted into the program. If accepted, the M.S.W. program director will analyze the student's transcript and course syllabi to determine which credits earned in another accredited social work program will transfer to Indiana University. In all circumstances, however, the transfer student must complete all required courses in their chosen Concentration Curriculum.

Non-M.S.W. Students With permission of the school, Indiana University students enrolled in other graduate degree programs or persons possessing the M.S.W. degree may request permission to enroll in selected *elective courses* within the program. Enrollment of nondegree students is restricted by the availability of space and faculty. Persons interested in such enrollment are required to request such permission in writing to the M.S.W. admissions coordinator of the school.

M.S.W. Programs of Study—INDIANAPOLIS

Indiana University School of Social Work provides several programs of study leading to the M.S.W. degree. Each program requires 60 credit hours of graduate-level course work.

Two-Year Full-Time Program

The Two-Year Full-Time Program consists of two years of course work taken over four academic semesters. Elective courses may be taken during the summer.

Part-Time Day Program

The Part-Time Day Program enables students to complete the foundation curriculum over two calendar years. Students attend classes during the academic year, starting in August. The complete program requires three calendar years.

Part-Time Saturday Program

The Part-Time Saturday Program enables students to complete the Foundation Curriculum (the first 30 credit hours of the program) over two calendar years. Classroom courses are offered on Saturdays. Students begin this program in late June by enrolling in their

first course during the summer II session. Following completion of the Foundation Curriculum, part-time Saturday students are required to complete the Concentration Curriculum (the final 30 credit hours of the program) with most classes and internships held during the week (usually Monday through Thursday). The complete program requires three calendar years.

Part-Time Evening Program

The Part-Time Evening Program enables students to complete the Foundation Curriculum (the first 30 credit hours of the program) over two calendar years. Classroom courses are offered on weekday evenings. Students begin this program in late June by enrolling in their first course during the summer II session. Part-time evening students are required to complete the Concentration Curriculum (the final 30 credit hours of the program) with most classes and internships held during the week (usually Monday through Thursday). The complete program requires three calendar years.

Advanced Standing Program

Students holding undergraduate social work degrees may be eligible for this program, which begins in May of each year. The following are specific requirements for consideration for admission to the Advanced Standing Program:

1. Graduation within five years from a baccalaureate social work program accredited (or admitted to candidacy for accreditation) by the Council on Social Work Education.
2. Successful completion of a statistics course.
3. A cumulative grade point average of at least 3.0 on a 4.0 scale.
4. A cumulative grade point average of at least 3.0 in all social work courses taken prior to Admissions Committee action. Accordingly, applicants to the Advanced Standing Program must provide the Admissions Committee with an official transcript. Senior B.S.W. students must provide a transcript including the fall semester (or winter quarter) grades of their senior year.
5. Evidence of characteristics and/or potentials required for competent social work practice as defined in the mission statement of the school. Such evidence may be derived from application materials, letters of reference, and/or pertinent work or volunteer experience.
6. A reference letter is required from the B.S.W. program director of the applicant's undergraduate program.

Students admitted with advanced standing will receive credit by credentials for all first-semester courses (14 credits). Candidates who have successfully completed a practice evaluation course *beyond* a research methodology course may receive an additional 3 credits by credential for this course. During the summer preceding the Concentration Year, students will satisfy the remaining second-semester course requirements of the Foundation Year. They can complete the concentration curriculum in one year.

Any eligible B.S.W. graduate applying for a program option other than the Advanced Standing Program may petition to test out of all first-semester course work.

Master of Social Work Curriculum

Social work is a dynamic profession concerned with changing needs of persons and the society. To respond to such needs, the curriculum of the School of Social Work undergoes continuing review by the faculty with the participation of students, members of the practice community, and others. Students must complete 60 credit hours of graduate-level course work in order to meet the minimum requirements for the Master of Social Work degree. All students complete a common 30 credit Foundation Curriculum that emphasizes a *generalist perspective* for social work practice. The Foundation Curriculum includes a one-semester practicum of a minimum of 320 clock hours. Following that, students complete a Concentration Curriculum that prepares them for (1) *advanced interpersonal social work practice* or (2) *advanced MACRO social work practice*. The Concentration Practicum of a minimum of 640 clock hours is usually completed over two semesters. All Foundation Curriculum course work must be completed before students are eligible to enroll in any required courses in the Concentration Curriculum.

The overall objectives of the Foundation Year of the M.S.W. program include development of

1. basic, generalist competence applicable to a broad range of social work practice
2. basic competence in both interpersonal practice and MACRO practice
3. basic competence for practice in social service delivery systems

The overall objectives of the Concentration Year include development of special competence in interpersonal practice or MACRO practice.

Typical course arrangements for students admitted to the Two-Year Full-Time Program are shown below.

Foundation Curriculum

First Semester (14 cr.)

- S500 Social Welfare and the Social Work Profession (3 cr.)
- S510 Human Behavior and the Social Environment: Individuals, Families, Groups (3 cr.)
- S511 Human Behavior and the Social Environment: Organizations, Communities, Societies (3 cr.)
- S540 Social Work Practice I: Theory and Skills (5 cr.)

Second Semester (16 cr.)

- S520 Evaluation Processes in Social Work (3 cr.)
- S530 Social Policy and Services I (3 cr.)
- S541 Social Work Practice II: Individuals, Families, Groups (3 cr.)
- S542 Social Work Practice II: Organizations, Communities, Societies (3 cr.)
- S550 Social Work Practicum I (4 cr.)

Concentration Curriculum

Courses presented over the two semesters of the Concentration Year will include the following:

Interpersonal Practice Requirements (21 cr.)

- S621 Social Work Research: Interpersonal (3 cr.)
- S643 Social Work Practice III: Individuals (3 cr.)
- S644 Social Work Practice III: Families (3 cr.)
- S645 Social Work Practice III: Groups (3 cr.)

- S651 Social Work Practicum II: Interpersonal (4 cr.)
- S652 Social Work Practicum III: Interpersonal (5 cr.)

MACRO Concentration Requirements (21 cr.)

- S622 Social Work Research: Macro (3 cr.)
- S646 Community Organization and Social Action (3 cr.)
- S647 Program Planning and Development (3 cr.)
- S648 Enhancing Task-Oriented Skills in Macro Practice (3 cr.)
- S653 Social Work Practicum II: Macro Practice (4 cr.)
- S654 Social Work Practicum III: Macro Practice (5 cr.)

Both Concentrations (9 cr.)

- S600 Elective 1 (3 cr.)
- S600 Elective 2 (3 cr.)
- S631 Social Policy and Services II [required] (3 cr.)

Educational Requirements

Students are admitted on the assumption that they have the potential academic ability and personal suitability for completing the professional program in which they are enrolled. All students in the M.S.W. program are expected to maintain the standards established by the School of Social Work and those held by the social work profession. In order to detect possible problems, the School of Social Work reviews students' performance periodically.

The Master of Social Work degree is recommended by the school and conferred by the university. Students must successfully complete 60 credit hours of required and elective courses carrying graduate credit. Each student is expected to follow the university and school schedules and dates for completion of requirements, including completion of all work within seven calendar years from the time of first enrollment.

Liability Insurance Students are required to carry professional liability insurance. Under the school's blanket policy, the cost of insurance is included in the student's practicum course fee.

Credit for Life Experience Academic credit for life experience and previous work experience is not given in whole or in part toward the social work degree.

Ph.D. Program

Admission Requirements

All applicants to the Ph.D. program must have a master's degree in social work or a related field. Admission to the Ph.D. program is based on evaluations of (1) the applicant's professional resume, (2) professional experience beyond the M.S.W. degree, (3) undergraduate and graduate transcripts, (4) three letters of reference, (5) an example of the applicant's scholarly writing, (6) a 500-word statement of purpose, and (7) Graduate Record Examination General Test scores.

Application Deadlines

Applications are accepted at any time, but a deadline of January 1 is required in order to be considered for a University Fellowship. All applications must be received by April 1 in order to be considered for

admission to the program for the following fall semester. For application materials and further information, write to

Ph.D. Admissions
School of Social Work
IUPUI
Education/Social Work Building 4138
902 W. New York Street
Indianapolis, IN 46202-5154
Telephone : (317) 274-6730
Web: iusswk.iupui.edu
E-mail : madamek@iupui.edu

Educational Requirements

The student must complete a total of 90 credit hours, including dissertation and research internship. Candidates for the Ph.D. degree may offer up to 30 hours of graduate credit from other institutions as follows:

1. Of the 30 graduate transfer credit hours counted toward the Ph.D. degree in social work, 15 of these credits must be in an area directly related to research (e.g., research methods, statistics, a mentored research project, etc.)
 - Of these 15 research-related credit hours, at least 6 credits must have been completed within three calendar years prior to the date the student enrolls in his/her first doctoral class following acceptance into the Ph.D. program.
 - All 15 research transfer credits must have been successfully completed as prerequisites for the two advanced research methods courses (S726 and S727), the Research Internship (S725), and the Advanced Statistics course.
 - Any or all of the 15 research transfer credits may be taken prior to acceptance into the Ph.D. program and in addition to the 9 credit hours associated with the pre-doc program.
2. All students must have successfully completed a graduate-level statistics course within three calendar years prior to enrolling in the required Advanced Statistics course. Students who have completed a statistics course more than three years prior to enrolling in the Advanced Statistics course may petition the director of the Ph.D. program to test out of this requirement.
3. Any research transfer credits not completed prior to acceptance into the Ph.D. program must be completed as part of the student's doctoral studies in accordance with the above provisions.

All courses credited toward the Ph.D. degree must have a minimum grade of B and must receive written approval of the School of Social Work Ph.D. Program Committee and the dean of the University Graduate School. Specific program requirements include (1) professional social work component, 33 credit hours; (2) specialization component, 18 credit hours; (3) research component, 21 credit hours; (4) research internship, 6 credit hours; and (5) dissertation, 12 credit hours.

All students in the Ph.D. program, with the approval of the program director, will select three faculty members to serve as their academic advisors

throughout their doctoral studies, one of whom will represent the student's area of specialization outside the School of Social Work.

Qualifying Examination Process

The qualifying examination process is comprehensive and integrative in nature. Specific guidelines for the completion of the qualifying process are available from the Ph.D. program director.

Admission to Candidacy

Following the passing of the qualification examination and the completion of all course work, the student's advisory committee will submit a Nomination to Candidacy Form to the University Graduate School. Upon approval of the dean, the student will be admitted to candidacy and awarded a Certificate of Candidacy.

Research Proposal

After nomination to candidacy, the student, with the approval of the program director, will select a research committee of no fewer than three faculty members, including a member outside of the School of Social Work. This committee must approve the proposed dissertation topic.

Final Examination

The final examination is the oral defense of the dissertation.

Pre-Doc Exploration Option

The Pre-Doc Exploration Option allows prospective doctoral students who are not yet able to, or not yet certain that they want to, apply to the Ph.D. program, to test their interest and commitment to doctoral education. Providing students with the time to gain the information and experience needed to make an informed decision about the program, this option permits qualified students to enroll in up to three of the school's regular Ph.D. foundation courses and to complete up to 9 credit hours of doctoral course work before deciding to apply formally to the program. If a student later applies and is accepted to the regular Ph.D. program, credits earned during the pre-doc phase will automatically apply toward the Ph.D. degree.

Participation in the Pre-Doc Exploration Option does not guarantee acceptance into the Ph.D. program. It does, however, provide a unique opportunity for students to explore that possibility. Courses counted toward the Ph.D. degree must be completed within seven years of passing the required qualification examination.

The selection of candidates for enrollment in the Pre-Doc Exploratory Option is based on the following criteria:

1. An earned master's degree in social work or a related field.
2. A graduate grade point average of at least 3.5 on a 4.0 scale.
3. Official copies of all baccalaureate- and master's-level transcripts.
4. A 500-word written statement that outlines the

applicant's reasons for seeking enrollment in the Pre-Doc Exploratory Option.

5. One letter of reference.
6. A professional resume.
7. Approval by the Ph.D. Program Committee.

Applications for the Pre-Doc Exploratory Option must be postmarked by June 15 for fall admission and by October 31 for spring admission.

Students enrolled in the Pre-Doc Exploratory Option are strongly encouraged to complete the S721 Preparing to Publish: Seminar in Advanced Scholarship Skills (3 credit hours) as part of their program of studies. The following is a list of other S700-level courses:

- S710 Proseminar on Client Systems (3 cr.)
- S720 Philosophy of Science and Social Work
- S726 Advanced Social Work Research Methods, Qualitative Research (3 cr.)
- S727 Advanced Social Work Research Methods, Quantitative Research (3 cr.)
- S730 Proseminar on Social Work Policy Analysis (3 cr.)
- S740 Social Work Practice: Theory and Research (3 cr.)

For additional information, contact:

Ph.D. Program Director
Indiana University
School of Social Work
902 W. New York Street
Indianapolis, IN 46202-5154
Telephone: (317) 274-6730
Web: iusswk.iupui.edu
E-mail: madamek@iupui.edu

Certificates

The School of Social Work offers two certificates: a Certificate in Case Management offered at the undergraduate level and a Certificate in Family Life Education offered at the undergraduate and graduate level. Both certificates are open to social work and non-social work students.

The requirements for the Certificate in Case Management are as follows:

- S200 Introduction to Case Management
- S221 Human Behavior and Social Environment I: Individual Functioning
- S231 Generalist Social Work Practice I: Theory and Skills
- S251 Emergence of Social Services
- S300 Crisis Intervention
- S332 Generalist Social Work Practice II: Theory and Skills
- S371 Social Work Research
- S381 Social Work Practicum or S482 Social Work Practicum II (or S280 for non-social work students)
- S442 Practice Policy Seminar in Field of Practice: Case Management

The requirements for the Certificate in Family Life Education at the undergraduate level are as follows:

Students take each of the following courses (15 cr.):
 F401 Introduction to Teaching and Learning
 S221 Human Behavior and Social Environment I:
 Individual Functioning
 S300 Working with Families
 S300/S400 Family Life Education
 S371 Social Work Research

Select one of the following (3 cr.):
 F255 Human Sexuality
 K380 Human Sexuality and the Health Professional
 R320 Sexuality and Society
 S300/S400 Human Sexuality

Select one of the following (3 cr.):
 F458 Family Law and Public Policy
 L100 Personal Law
 R430 Families and Social Policy
 S442 Practice-Policy Seminar in Fields of Practice:
 Family and Children

The requirements for the Certificate in Family Life Education at the graduate level are as follows:
 F500 Introduction to Teaching and Learning
 G567 Marriage and Family Counseling, or S644,
 Social Work Practice III: Families
 S510 Human Behavior and the Social Environment:
 Individuals, Families, Groups or P514 Lifespan
 Development Birth to Death
 S543 Family Life Education or S600 Family Life
 Education
 S600 Human Sexuality
 S631 Social Policy and Services II or P650 Children's
 Rights and Child Development
 Select one of the following:
 S520 Evaluation Processes in Social Work
 Y520 Strategies for Educational Inquiry
 Y535 Evaluation Models and Techniques
 Y611 Qualitative Inquiry in Education

For further information, please contact Katrina Brown at kbrown@iupui.edu or by phone at (317) 274-8359.

Professional and Academic Integrity

Students' Rights and Responsibilities

Social work students in the B.S.W., M.S.W., and Ph.D. programs have a right to participate in decision-making activities about the educational program and the School of Social Work. Students regularly contribute to the continued development and growth of our programs. Indeed, the school values students' input in several critical areas: faculty and course evaluation, school committee work, faculty hiring, and student field placements.

All students enrolled at Indiana University have an opportunity each semester to evaluate their courses and instructors. At the end of each course, students are given standardized faculty evaluation forms to complete. These evaluations are confidential, and the results are computer generated. The evaluations are returned to the faculty to use for strengthening content and learning methods to improve instruction.

Through their elected and/or volunteer representatives, social work students provide input to

and learn from each of the following committees: B.S.W., M.S.W., Ph.D., and various others that might be convened throughout the year. Student representatives are viewed as valuable members of these committees.

Students have the opportunity to meet both informally and formally with any candidates being considered for faculty positions.

Each student has the opportunity to have input into the selection of his or her field practicum assignments. The field practicum coordinator works closely with the student to negotiate a suitable placement.

Social work students have the right to provide feedback about school policies and procedures as well as the behavior of faculty and staff members. In providing either positive or critical feedback, students are expected to follow professional social work norms, values, and ethics. For example, if a student believes that a faculty or staff member's behavior is discourteous or ineffective, she or he should discuss the concern directly with the person or people in question. If the student has reason to believe that in addressing the person directly, she or he would be placed in some jeopardy, then the student should register the concern with the director or campus coordinator of the program, who will address and respond to the issue.

If a student believes that she or he has been treated unfairly or unprofessionally by a faculty or staff member or that a policy or procedure is unjust or unwise, then the student may submit in writing a formal grievance petition to the dean of the school. Grievance petitions are reserved for those issues or incidences that warrant formal investigation and full exploration. Such petitions should be submitted in a professional manner, consistent with social work norms, values, and ethics.

Student complaints regarding discrimination, sexual harassment, racial harassment, and harassment on the basis of sexual orientation have established complaint procedures available in the Indiana University *Code of Student Rights, Responsibilities, and Conduct*.

Academic and Scholarly Guidelines

Students admitted to any Indiana University School of Social Work program have already demonstrated potential for superior academic work. Most social work students are therefore very familiar and comfortable with high academic and scholarly standards. Obviously, students are expected to attend classroom and practicum course meetings. Regular attendance is viewed as the personal and professional responsibility of each social work student. Active participation in course activities is the expected norm. In participating, it is expected that students reflect interest in, and respect for, their colleagues in a manner that is congruent with the values, ethics, and skills of the profession.

In written assignments, students are expected to prepare documents in a scholarly and professional manner. Submissions should be typewritten in double-

spaced format and carefully edited for spelling and grammar. All direct quotations, paraphrases, empirical research findings, and other restatements of the research, scholarship, or creative work of others must be appropriately annotated using the standard bibliographic citation methods set out by the American Psychological Association in the most recent edition of the *Publication Manual*. The *APA Manual* serves as the guide for style and format of all papers submitted in the School of Social Work.

Competent and effective social work practice requires well-developed and refined communication skills, including the use of the written word. Writing well helps social workers communicate information accurately and concisely to others involved in helping client systems. For this reason, formal writing assignments in social work courses will be evaluated on both the basis of the quality of the scholarly content as well as the quality of its presentation.

Electronic Communication

Students are expected to follow appropriate e-mail etiquette when communicating with faculty, staff, and peers. Correct grammar is expected at all times. Inappropriate use of email will be grounds for student review. For specific guidelines, please visit www.itpo.iu.edu/policies.html and www.itpo.iu.edu/computeruse.html.

Student Misconduct

The following is based on Indiana University (1997), *Code of Student Rights, Responsibilities, and Conduct* (Part III, pp. 17-18), Bloomington, IN: Indiana University, and on Indiana University-Purdue University Indianapolis (1997), *Code of Student Rights, Responsibilities, and Conduct* (Part III, pp. 28-29), Indianapolis, IN: Indiana University-Purdue University Indianapolis.

A. Academic Misconduct.

Indiana University School of Social Work and/or the university may discipline a student for academic misconduct defined as any activity that tends to compromise the academic integrity of the institution and undermine the educational process. Academic misconduct includes, but is not limited to, the following:

1. Cheating.

- A student must not use external assistance on any "in-class" or "take-home" examination, unless the instructor specifically has authorized such assistance. This prohibition includes, but is not limited to, the use of tutors, books, notes, and calculators.
- A student must not use another person as a substitute in the taking of an examination or quiz.
- A student must not steal examinations or other course materials.
- A student must not allow others to conduct research or to prepare any work for him or her without advance authorization from the instructor to whom the work is being submitted. Under this prohibition, a student must not make any unauthorized use of materials obtained from commercial term paper companies or

from files of papers prepared by other persons.

- A student must not collaborate with other persons on a particular project and submit a copy of a written report that is represented explicitly or implicitly as the student's own individual work.
- A student must not use any unauthorized assistance in a laboratory, at a computer terminal, or on fieldwork.
- A student must not submit substantial portions of the same academic work for credit or honors more than once without permission of the instructor to whom the work is being submitted.
- A student must not alter a grade or score in any way.

2. Fabrication.

A student must not falsify or invent any information or data in an academic exercise including, but not limited to records or reports, laboratory results, and citations to the sources of information.

3. Plagiarism.

A student must not adopt or reproduce ideas, words, or statements of another person without an appropriate acknowledgment. A student must give due credit to the originality of others and acknowledge an indebtedness whenever he or she does any of the following:

- quotes another person's actual words, either oral or written
- paraphrases another person's words, either oral or written
- uses another person's idea, opinion, or theory
- borrows facts, statistics, or other illustrative material, unless the information is common knowledge

4. Interference.

- A student must not steal, change, destroy, or impede another student's work. Impeding another student's work includes, but is not limited to, the theft, defacement, or mutilation of resources so as to deprive others of the information they contain.
- A student must not give or offer a bribe, promise favors, or make threats with the intention of affecting a grade or the evaluation of academic performance.

5. Violation of Course Rules.

A student must not violate course rules as contained in a course syllabus or other information provided to the student.

6. Facilitating Academic Dishonesty.

A student must not intentionally or knowingly help or attempt to help another student to commit an act of academic misconduct.

Indiana University School of Social Work Policy Regarding Individuals Convicted of Sex Offenses against Children

Policy Statement

It is the policy of the School of Social Work that no students or applicants who have been convicted of sex offenses against children shall be eligible for admission or matriculation into the B.S.W., M.S.W., or Ph.D. programs.

Procedure

1. **Responsible Office.** The Office of Student Services, in conjunction with the Admissions Committee of each program, shall administer the Sex Offenders Screening Policy as it relates to student admissions and transfers.
2. **Periodic Review.** Periodically program committees will review the policy and will make recommendations to the dean of the school regarding any possible changes to the policy and procedures for implementation.
3. **Preadmission and Transfer Screening.** Applicants will be asked to self-report any history of convictions of sexual offenses against children. As well, once students are accepted into the program, their names will be forwarded to the Office of the Registrar for screening against the registry. Any applicant or new admittee whose name is on the registry will be ineligible for admission or transfer and shall be notified of nonacceptance or termination from the respective program.
4. **Students in Affected Programs.** Any student who is already in an Indiana University School of Social Work Program and whose name appears on the registry during the time of matriculation, or who has been convicted of an offense for which the student can be listed on the registry, shall be ineligible for continuation or completion of the affected program. Any faculty member, student, field instructor, or other person within the school who becomes aware of such a situation should bring it to the attention of the respective program director for appropriate action.
5. **Notice.** The school bulletin shall include a statement giving notice to potential applicants that criminal convictions may render persons ineligible for certain practica.
6. **Nonexclusive Policy.** Nothing in this policy shall be deemed to preclude the school from taking other appropriate action in such cases, or in the case of applicants or students involved in other conduct or criminal activities not covered in this policy.
7. **Right to Appeal.** Any applicant or student already admitted to an Indiana University School of Social Work program who is deemed ineligible for admission or continuation based upon a record of criminal conviction may appeal to the dean of the school for reconsideration if she or he

believes there are extenuating circumstances that might mitigate the findings. The dean will appoint a review panel of three full-time faculty members to consider the student's appeal. The review panel, in consultation with the Office of University Counsel, will consider all pertinent information and make a ruling that shall be considered final.

For other policies, please visit iussw.iupui.edu

Student Services— Indianapolis Campus

Career Information

Information about employment in specific careers is available from Indiana University Career and Employment Services, Business/SPEA Building 2010, (317) 274-2554, career@iupui.edu, and the School of Social Work's Office of Student Services.

Financial Assistance

Opportunities for financial aid for graduate students are different from those for undergraduates. It is important to understand that graduate students are only eligible for loans from IU financial aid. Additionally, the School of Social Work has some limited funds available for tuition assistance. Persons interested in financial aid should contact the following office:

Office of Financial Aid
IUPUI
Cavanaugh Hall, CA 103
425 University Blvd.
Indianapolis, IN 46202-5145
Undergraduate: (317) 274-4162
Graduate: (317) 278-4723
Web: www.iupui.edu/~finaid

Information regarding financial awards from the School of Social Work is made available to social work students at the beginning of the academic year.

Student Organizations

Students of the school maintain B.S.W. and M.S.W. Social Work Student Associations, which sponsor program meetings and social affairs during the year. Through elected officers and committees, the associations serve as important channels for communication between students and faculty. In addition, these organizations appoint student representatives to various school committees. Students also are encouraged to participate in organizations related to the social work profession. Information about these organizations can be found in the B.S.W. and M.S.W. student handbooks.

Students with Disabilities

By anticipating some common problem areas, the university makes every effort to help students with physical or learning disabilities make the transition to university life. A detailed list of services is available through the Office of Adaptive Educational Services, 425 University Boulevard, (317) 274-3241, TDD/TTY (317) 278-2050.

Furthermore, the Indiana University School of Social Work makes every reasonable attempt to accommodate participants in our programs.

Courses of Instruction

In the following course listings, the abbreviation “P” refers to prerequisite and “C” indicates corequisite courses. This bulletin lists only prerequisite and corequisite social work courses. A list of the specific prerequisite and corequisite courses from the general and supportive area requirements needed for social work courses can be requested from the B.S.W. program office on the campus of your choice. The number of hours of credit given to a course is indicated in parentheses following the course title.

B.S.W. Courses

The following course listing includes B.S.W. required courses and selected elective courses.

S100 Understanding Diversity in a Pluralistic Society (3 cr.) Theories and models that enhance understanding of our diverse society. It provides content about differences and similarities in the experiences, needs, and beliefs of selected minority groups and their relation to the majority group.

S141 Introduction to Social Work (3 cr.) Examination of characteristics, function, and requirements of social work as a profession. Emphasis on ideological perspectives of the profession and the nature of professional function and interaction.

S200 Introduction to Case Management (3 cr.) Explores current models of case management. It addresses emerging case manager's functions and roles within the contemporary network of human services. Students may use this course to fulfill requirements for the Certificate on Case Management, or may take it as an elective.

S221 Human Behavior and Social Environment I: Individual Functioning (3 cr.) P: S141 or consent of the instructor. Understanding of human behavior and the social environment as a basis for social work practice. Focuses on understanding the interaction between person and environment. Coverage of major theories of individual functioning, life cycle development, and the family context. Exploration of inequality, discrimination, and differential access to opportunities for diverse populations.

S231 Generalist Social Work Practice I: Theory and Skills (3 cr.) P or C: S221. Development of a critical understanding of social work practice. It focuses on the beginning phase of the helping process and related skills. Topics include the nature of the helping relationship, NASW Code of Ethics, practice as it relates to oppressed groups, assessment, and practice evaluations.

S251 Emergence of Social Services (3 cr.) P: S141 or consent of the instructor. Examination of the evolution of social services in response to human needs and social problems as related to economic, political, and social conditions.

S280 Introduction to Field Experience (1-3 cr.) P: consent of the instructor. Introductory field experience for testing interest in a social work career.

S300 Computer Technology for Social Workers (3 cr.) Broad overview of computer software applications and Internet and World Wide Web, with an emphasis on their utilization in the social work profession. Ethical and social implications of computer technology for the social work profession, highlighting considerations specific to at-risk populations. Students may use this course to fulfill the computer course requirement or they may take it as an elective.

S300 Crisis Intervention (3 cr.) Focuses on the increasing number of complex and painful personal, couple, and family crisis situations encountered by social workers in the course of service delivery. Students may use this course to fulfill requirements for the Certificate on Case Management, or as an elective.

S300 Working with Families (3 cr.) Exploration of family relationships and roles in the 21st century. Examination of challenges encountered by families across the family life cycle.

S300/S400 Family Life Education (3 cr.) An understanding of the general philosophy and broad principles of family life education in conjunction with the ability to plan, implement, and evaluate such educational programs.

S322 Human Behavior and Social Environment II: Small Group Functioning (3 cr.) P: S221. Examination of the significance of the small group as context and means for social development of individuals and as agent of change in the social environment. Discussion of the individual as a member of a variety of groups, including the family. The course considers the formal organization as a composite of groups.

S323 Human Behavior and Social Environment III: Community and Organizational Functioning (3 cr.) P or C: S322. Provision of a theoretical and conceptual foundation on community and formal organizations necessary to social work practice. Topics include conceptual approaches for understanding communities and organizations; community research; institutional discrimination; distribution of community resources; and power and control as they relate to oppressed groups.

S332 Generalist Social Work Practice II: Theory and Skills (3 cr.) P: S231, S251. P or C: S352. C: S381. Examination of middle and ending phases of the helping process and related skills. Topics include the helping relationship with various client system sizes; impact of agency policies and procedures upon practice and resolution of clients' problems; and practice evaluation.

S352 Social Service Delivery Systems (3 cr.) P: S251. Examination of policies, structures, and programs of service delivery systems at local, regional, and national levels with emphasis on relations among such systems as formal organizations. Students acquire knowledge of the policy development process, which helps them establish beginning capacity for policy analysis and policy practice.

S371 Social Work Research (3 cr.) P: junior standing. Examination of basic research methods in social work, the relevance of research for social work practice, and the selection of knowledge for use in social work.

S381 Social Work Practicum I (3 cr.) P: S231, S251. P or C: S352. C: S332. Guided field practice experience (12 hours per week) for application of generalist practice concepts and principles and the development of basic practice skills. Students are to intern in a human service organization for a minimum of 192 clock hours, which includes a bimonthly seminar.

S400 Practicum Seminar (1 cr.) P: all junior-level social work courses. C: S433, S472, S482. Discussion of practice issues as experienced in S482.

S433 Generalist Social Work Practice III: Theory and Skills (3 cr.) P: all junior-level social work courses. C: S400, S472, S482. Development of the ability to work differentially with selected situations and varied system sizes. Students learn to identify clients' needs as the primary factor influencing the choice of intervention. Special consideration is given to working with groups and communities. The impact of emerging technologies on clients is explored.

S442 Practice-Policy Seminar in Fields of Practice (2 courses required) (3 cr.) P: S433, S472, S482. Addresses practice and policy issues in specific fields of practice such as child and family, aging, addictions, and developmental disabilities.

S472 Practice Evaluation (3 cr.) P: S371 and all other junior-level social work courses. C: S433, S482. Develops the knowledge and skills necessary for students to evaluate their own practice with individuals, groups, communities, and organizations. The use of selected software is explored.

S482 Social Work Practicum II (5 cr.) P: All junior-level social work courses. C: S433, S472. Guided field practice experience (20 hours per week) for application of concepts and principles and development of skills for generalist practice with selected social systems. Students are to practice in a human service organization for a minimum of 320 clock hours.

S490 Independent Study (1-6 cr.) P: permission of instructor. An opportunity to engage in a self-directed study of an area related to the school's curriculum in which no formal course is available.

M.S.W. Courses (Graduate Standing is Required)

S500 Social Welfare and the Social Work Profession (3 cr.) Orients students to the profession of social work by examining the history of social work in the context of its values and ethics and by discussing the social welfare framework within which the profession exists.

S510 Human Behavior and the Social Environment: Individuals, Families, Groups (3 cr.) Focuses on individual development and functioning at all system levels with particular emphasis on the interplay of individual, family, and group system needs and resources over time. Special attention is given to issues of values and ethics and to the impact of inequality, discrimination, and differential access to opportunity within society on the development and functioning of the individual, family, and group systems.

S511 Human Behavior and the Social Environment: Organizations, Communities, Societies (3 cr.) Presents theoretical frameworks for understanding organizations, communities, and society as both targets and instruments of change, focusing on the ways that organizational, community, and societal structures and processes enhance or inhibit the well-being of people. Course content includes selected social problems. Special attention is given to the impact of inequality, discrimination, and differential access to opportunity on the larger systems as well as on individuals and groups within them.

S520 Evaluation Processes for Social Work (3 cr.) Introduces students to the knowledge and skills needed to evaluate their own practice and the effectiveness of social service programs within which they work.

S530 Social Policy and Services (3 cr.) Examines the political and legislative processes as these influence the development of social policy and services. Included are legislative and political processes, models of policy analysis, service delivery, and policy implementation. The effects of these on people are considered from global, political, economic, and social policy perspectives.

S540 Social Work Practice I: Theory and Skills (5 cr.) Introduces students to knowledge, values, and skills for generalist social work practice. The course prepares students to enhance the well-being of people and to ameliorate environmental conditions that affect them adversely. Includes laboratory experiences to provide opportunities for students to develop basic social work skills through experiential and simulation activities. Focus is on the core interactional skills of social work practice differentially applied at all system levels and with diverse populations.

S541 Social Work Practice II: Individuals, Families, and Groups (3 cr.) Focuses on generalist social work practice with individuals, families, and groups.

S542 Social Work Practice II: Organizations, Communities, Societies (3 cr.) This course is concerned with helping communities and other social units to empower themselves and eradicate oppressive situations and practices through networking, political participation, leadership development, mobilization, utilization of resources, and other strategies and techniques.

S550 Social Work Practicum I (4 cr.) This course is an educationally directed practice experience (16-20 hours per week) in social work practice settings with approved field instructors; 320 clock hours.

S621 Social Work Research: Interpersonal (3 cr.) Course provides content from various research methodologies, including qualitative and quantitative designs, to support advanced interpersonal social work practice.

S622 Social Work Research: Macro Practice (3 cr.) This course helps the student acquire knowledge and competence in quantitative and qualitative evaluation, research, and needs/resource assessment in relation to macro practice.

S631 Social Policy and Services II (3 cr.) A group of courses covering topics or content including social problems, special populations, particular social service delivery areas, and social indicators that predict areas of future social policy transformations.

S643 Social Work Practice III: Individuals (3 cr.) Focuses on theory and skills needed for advanced social work practice with and on behalf of individuals.

S644 Social Work Practice III: Families (3 cr.) Focuses on theory and skills needed for advanced social work practice with and on behalf of families.

S645 Social Work Practice III: Groups (3 cr.) Focuses on theory and skills needed for advanced social work practice with and on behalf of natural and formed groups.

S646 Community Organization and Social Action (3 cr.) Focuses on theory and skills needed by social workers for advanced community organization and social action.

S647 Program Planning and Development (3 cr.) This is a skills course in which the student learns how to develop a program plan and all its components as well as the strategy for its implementation.

S648 Enhancing Task-Oriented Skills in Macro Practice (3 cr.) This is a skills course in which the student learns and uses a framework for social advocacy and social justice as applied to "community" and "organization and social development."

S651 Social Work Practicum II: Interpersonal (4 cr.) Agency-based field experience (16 hours per week) for interpersonal practice concentration students; 256 clock hours.

S652 Social Work Practicum III: Interpersonal (5 cr.) Agency-based field experience (16-24 hours

per week) for interpersonal practice concentration students; 386 clock hours.

S653 Social Work Practicum II: Macro Practice (4 cr.) Agency-based field experience (16 hours per week) for macro practice concentration students; 256 clock hours.

S654 Social Work Practicum III: Macro Practice (5 cr.) Agency-based field experience (16-24 hours per week) for macro practice concentration students; 386 clock hours, usually over 2 semesters.

S680 Special Social Work Practicum (1-9 cr.) An educationally directed field experience in addition to the required practicum courses.

S690 Independent Study (1-6 cr.) An opportunity to engage in a self-directed study of an area related to the school's curriculum in which no formal course is available. (In order to enroll in S690, approval from an academic advisor and the director of the M.S.W. program is required.)

S600 Electives Vary in subject matter. Scheduling of these courses will be announced prior to semester registration.

Ph.D. Courses

In addition to the required courses listed below, all students must complete a minimum of 12 credit hours outside the School of Social Work related to their area of specialization. An advanced course in *measurement and statistics* also is required and is typically taken as part of the student's area of specialization. All students enroll for 6 elective credits, which may be taken within or outside the School of Social Work with the approval of the student's advisory committee.

S700 Integrative Seminar (3 cr.) P: completion of specialization requirements or consent of instructor. This seminar is scheduled at the conclusion of the didactic component of the program and is intended to provide an opportunity for students to examine within the context of a social work perspective the relevant research and practice issues that have emerged as a consequence of having participated in an educational program that includes content taken both within and outside the School of Social Work.

S710 Philosophy of Science and Social Work (3 cr.) This seminar focuses on the converging forces that have shaped the development, dissemination, and utilization of the human behavior knowledge base of social work. It specifically examines the social and behavioral science theory and research that provide the foundation for social work practice across a variety of system levels.

S720 Philosophy of Science and Social Work (3 cr.) This course examines the nature and sources of social work knowledge and considers a range of epistemological issues involved in the selection, development, evaluation, and use of knowledge for social work.

S721 Preparing to Publish: Seminar in Advanced Scholarship Skills (3 cr.) This course prepares doctoral students for academic scholarship. Topics include expectations and standards for scholarly discourse, critical and analytic thinking

skills, logical argument, scholarly writing publication, and the development of a research agenda. Web-based peer and instructor review of successive drafts of writing assignments culminate in a synthesized review of literature.

S726 Advanced Social Work Research Methods, Qualitative Research (3 cr.) This course provides an opportunity for students to initiate a research project using qualitative research methods. Topics covered will include developing the research question, exploring the literature, writing an interview guide, interviewing, analyzing data, computer analysis, writing reports, subjectivity and bias, ethics, role of theory, trustworthiness, and audits.

S727 Advanced Social Work Research Methods, Quantitative Research (3 cr.) This course on quantitative research explores the similarities and differences in the various research methods and provides an opportunity to formulate and test a research question. Students will formulate and refine a research question based on interest and a thorough review of the literature. They will learn how to choose an appropriate design for answering testable problems, questions, or hypotheses. The role of theory, fundamentals of sampling, the role of informants, and steps of preparatory work will be explored. Students will generate, test, and refine interview questions or instruments appropriate to their chosen design. They will identify potential funding opportunities and current research through online data searches. Computer demonstrations and experiential computer exercises will expose students to research software and available databases. At the conclusion of the semester, students will have developed a research proposal and field tested their data collection instruments.

S725 Social Work Research Internship (6 cr.) P: S720, S721, foundation statistics course, and at least one of the following: S710, S730, or S740. This supervised field internship provides practical experience in conducting research relevant to social work practice. Students participate in a new or ongoing faculty-supervised research project involving the design and implementation of a study, including the collection and analysis of data and the development of appropriate research reports. Internship may be registered for up to three times.

S730 Proseminar on Social Work Policy Analogies (3 cr.) This seminar focuses on the development and application of analytical tools necessary to critically examine and evaluate social policy theory and research germane to social work, including the values and ideologies that undergird social problem construction, social policy creation, and social program design. Specific attention is devoted to the application of this schemata for diverse populations.

S740 Interpersonal Social Work Practice: Theory and Research (3 cr.) This seminar provides an in-depth orientation to the place of research in social work. It focuses on epistemological, methodological, practical, and ethical issues that affect the way in which research relevant to the profession of social work is conducted and used.

S790 Special Topics in Social Work Practice, Theory, and Research (Var: 1-3 cr.) P: approval by appropriate instructor. This course provides students with an opportunity to engage in focused study of a substantive area of social work practice directly related to the student's identified area of theoretical and research interest. It is completed with the approval and under the guidance of a member of the Ph.D. faculty.

S800 Ph.D. Dissertation Research (12 cr.)

School Alumni

Graduates of the school maintain an active Alumni Association whereby they continue to participate in the improvement of the programs and the achievement of the school's progressive goals. Leadership is provided by officers and an executive committee elected biennially.

School of Social Work Administration

MICHAEL PATCHNER, Ph.D., *Dean*

WILLIAM H. BARTON, Ph.D., *Director of Research Center, IUPUI*

KATHARINE BYERS, M.S.W., Ph.D., *Coordinator, B.S.W. Program, Bloomington*

EDWARD FITZGERALD, M.S.W., J.D., *Director, B.S.W. Program, IUE*

ROBERT WEILER, M.S.W., Ph.D., *Interim Director, Division of Social Work, IUN*

PAUL NEWCOMB, M.S.W., Ph.D., *Director, M.S.W. Program, IUSB*

MARGARET ADAMEK, M.S.W., Ph.D., *Director, Ph.D. Program*

IRENE QUEIRO-TAJALLI, M.S.W., D.S.W., *Director of Undergraduate Education, IUPUI*

MARION WAGNER, M.S.W., Ph.D., *Director, M.S.W. Program, IUPUI*

Faculty

*Adamek, Margaret, Ph.D. (*Case Western Reserve University, 1989*), *Associate Professor of Social Work, IUPUI*

Armstead, Sheila, M.S.W. (*Indiana University, 1992*), *B.S.W. Field Instruction Coordinator and Clinical Assistant Professor, East*

*Barton, William, Ph.D. (*University of Michigan, 1985*), *Professor of Social Work, IUPUI*

Bennett, Robert, D.S.W. (*University of Utah, 1991*), *Assistant Professor of Social Work, IUPUI*

Black, Carolyn, Ph.D. (*University of Illinois at Chicago, 1996*), *Assistant Professor of Social Work, IUPUI*

Blackman, Lorraine, Ph.D. (*Florida State University, 1992*), *Associate Professor of Social Work, IUPUI*

Byers, Katharine, Ph.D. (*Indiana University, 1989*), *B.S.W. Program Coordinator and Associate Professor of Social Work, Bloomington*

**Chang, Valerie, Ph.D. (*University of Illinois, 1993*), *Associate Professor of Social Work, IUPUI*

**Cournoyer, Barry, D.S.W. (*University of Utah, 1979*), *Professor of Social Work, IUPUI*

Cox, Gayle, Ph.D., (*University of Denver, 1978*), *Associate Professor of Social Work, IUPUI*

Cummins, Linda, Ph.D. (*Ohio State University, 1996*), *Assistant Professor of Social Work, IUPUI*

Daley, James, Ph.D. (*Florida State University, 1986*), *Assistant Professor of Social Work, IUPUI*

Fitzgerald, Edward, J.D. (*Indiana University, 1997*), *Director, B.S.W. Program and Assistant Professor of Social Work, East*

**Folaron, Gail, Ph.D. (*University of Illinois, 1992*), *Associate Professor of Social Work, IUPUI*

Galyean, Erika, M.S.W. (*Indiana University, 1992*), *School Field Instruction Coordinator and Teacher Practitioner, IUPUI*

Gass, Sherry, M.S.W. (*Indiana University, 1987*), *M.S.W. Student Services and Admissions Coordinator and Teacher Practitioner, IUPUI*

*Greene, Roberta, Ph.D. (*University of Maryland, 1980*), *Professor of Social Work, IUPUI*

Gudorf, Gerald, Ph.D. (*Institute for Clinical Social Work, Chicago, Illinois, 1991*), *Assistant Professor of Social Work, South Bend*

Hackworth, Bruce, Ph.D. (*Andrews University, 1996*), *M.S.W. Field Instruction Coordinator and Assistant Professor of Social Work, South Bend*

Hostetter, Carol, Ph.D. (*Indiana University, 1998*), *Assistant Professor, Bloomington*

Huggins, Pamela, M.S.W. (*University of Missouri, 1981*), *Visiting Lecturer in Social Work, IUPUI*

Iverson, Elsa, M.S.W. (*Indiana University, 1969*), *Lecturer, IUPUI*

Kim, Hae-Won, Ph.D. (*University of Wisconsin, 1998*), *Assistant Professor of Social Work, IUPUI*

Lemp, Cindy, M.S.W. (*Washington University, 1986*), *Permanent Part-Time Instructor, IUSB*

Lighty, Brad, M.S.W. (*Indiana University, 1997*), *B.S.W. Student Services Coordinator and Teacher Practitioner, IUPUI*

Marschall, Tracy, M.S.W. (*Indiana University, 1997*), *Assistant Professor of Social Work, East*

**Marshall, Eldon, Ph.D. (*St. Louis University, 1972*), *Associate Professor of Social Work, IUPUI*

McDonald, Deanna, M.S. (*Loyola University, 1992*), *Director of Field Instruction; Clinical Assistant Professor of Social Work, Northwest*

McGuire, Lisa, Ph.D. (*Case Western University, 2000*), *Visiting Assistant Professor of Social Work, IUPUI*

*Newcomb, Paul, Ph.D. (*Florida State University, 1986*), *Director, M.S.W. Program and Associate Professor of Social Work, South Bend*

Patchner, Michael, Ph.D. (*University of Pittsburgh, 1980*), *Dean of the School of Social Work and Professor of Social Work, IUPUI*

Pentz, Marty, M.S.W. (*University of Oklahoma, 1991*), *Assistant Professor of Social Work, East*

Pike, Cathy, Ph.D. (*University of Alabama, 1994*), *Associate Professor of Social Work, IUPUI*

*Powers, Gerald T., Ph.D. (*University of Pittsburgh, 1973*), *Ph.D. Program Director and Professor of Social Work, IUPUI*

**Queiro-Tajalli, Irene, Ph.D. (*University of Illinois, 1984*), *Director of Undergraduate Education and Professor of Social Work, IUPUI*

Roberts, Theresa, Ph.D. (*University of Illinois, 1992*), *Assistant Professor of Social Work, IUPUI*

* Full member of the Indiana University Graduate Faculty

** Associate member of the Indiana University Graduate Faculty

Rose, June, Ph.D. (*University of Tennessee, Knoxville, 1999*), Assistant Professor of Social Work, South Bend

Satre, Carol, M.S.W. (*University of Minnesota, 1990*), School M.S.W. Field Instruction Coordinator and Teacher Practitioner, IUPUI

*Sullivan, William Patrick, Ph.D. (*University of Kansas, 1989*), Professor of Social Work, IUPUI

Travis, Denise, Ph.D. (*University of Illinois at Chicago, 1997*), Assistant Professor of Social Work, Northwest

VanVoorhis, Rebecca, Ph.D. (*Ohio State University, 1974*), Associate Professor of Social Work, IUPUI

Vernon, Robert, Ph.D. (*University of Michigan, 1990*), Visiting Associate Professor of Social Work, IUPUI

Wagner, Marion, Ph.D. (*University of Illinois, 1991*), M.S.W. Program Director and Associate Professor of Social Work, IUPUI

Webb, Michelle, M.S.W. (*Indiana University, 1989*), Coordinator of Field Instruction and Visiting Lecturer, IUSB

Weiler, Robert, M.S.W. (*University of Illinois at Urbana Champaign, 1988*), Interim Director, Division of Social Work and Lecturer, Northwest

Faculty Emeriti

Beall, Patricia, A.M. (*Indiana University, 1950*), Professor Emerita of Social Work

Behrooz, Cyrus, D.S.W. (*University of Pennsylvania, 1974*), Professor Emeritus of Social Work

Copeland, Ruth V., M.S.W. (*University of Michigan, 1948*), Associate Professor Emerita of Social Work

Fortner, Mary E., A.M. (*Indiana University, 1959*), Associate Professor Emerita of Social Work

Kane, Raymond F., M.S.S.W. (*Fordham University, 1959*), Associate Professor Emeritus of Social Work

Koleski, Raymond A., M.S.W. (*Boston College, 1951*), Associate Professor Emeritus of Social Work

Metzger, David, F., M.A. (*Ball State University, 1962*), Associate Professor Emeritus of Social Work

Pardo, George, M.S.S. (*Fordham University, 1959*), Associate Professor Emeritus of Social Work

Tennant, Violet E., D.S.W. (*University of Pennsylvania, 1968*), Professor Emerita of Social Work

Siegel, Sheldon, Ph.D. (*University of Michigan, 1974*), Dean Emeritus of the School of Social Work and Professor Emeritus of Social Work

Singh, Sudarshan, K., A.M. (*International Institute for Social Studies, The Netherlands, 1955*), Assistant Professor Emerita of Social Work

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Staff

Barnes, Demetri, M.S.W. Field Secretary, IUPUI

Beardsley, Nancy, Administrative Secretary, IU South Bend

Brock, Rhonda, M.S.W. Student Services Secretary/Recorder, IUPUI

Brown, Katrina, B.S.W. Student Services Secretary/Recorder, IUPUI

Coffin, Phil, *Administrative Secretary/Recorder, Bloomington*

Cork, Beatrice, *Development Coordinator, IUPUI*

Godby-Schwab, Ali, *Daily Fiscal Affairs Coordinator, IUPUI*

Goldie, Fran, *Senior Secretary/Recorder, Northwest*

Holt, Traci, *Receptionist/Secretary, IUPUI*

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McCracken, Mary Alice, *Assistant to the Director, East*

McWilliams, April, *Assistant to the M.S.W. Director, IUPUI*

Roberts, Mary, *Assistant to the Dean, Office Manager, IUPUI*

Taylor, Madonna, *Administrative Assistant to the Directors, IUPUI*

Winters, Jane, *Faculty Secretary, IUPUI*

Agencies Participating in Field Instruction

The following list represents the most current account of participating field agencies.

Agencies in Indiana

Allen County

Family and Children's Services
Lutheran Behavioral Health Center
Northern Indiana VA Healthcare Center
Park Center, Inc.
Parkview Memorial Hospital
Special Alternatives Family and Youth
Women's Bureau

Bartholomew County

Foundation for Youth
George Junior Republic
Hospice of Bartholomew County
Quinco Behavioral Health Systems
ReUnion Family Association

Boone County

Behavioral Healthcare

Brown County

Brown County Family Access Program
Quinco Behavioral Health Systems

Cass County

Lewis Cass Intermediate School District
Southeastern School Corporation
Woodlands Behavioral Center

Clinton County

Clinton County Division of Family and Child

Decatur County

Decatur County Memorial Hospital

Delaware County

Arbor Clinic

Elkhart County

Adoption Resource Services, Inc.
Eastlake Terrace
Elkhart Community Schools
Elkhart General Hospital
Elkhart Youth Services Bureau
Oaklawn Community and Service Partial Hospital
Oaklawn Psychiatric Services
Violence Intervention Project

Fayette County

East Central Special Services
Whitewater Care Pavilion

Fountain County

Families United

Fulton County

Step Ahead/First Steps

Grant County

Family Service Society
Grant-Blackford Mental Health Center
Northern Indiana VA Healthcare Center
Trinity House Counseling

Greene County

Bloomfield Community Schools

Hamilton County

Family Service Association
Hamilton Center

Hancock County

Gallahue Mental Health Center
Hancock Memorial Hospital

Hendricks County

Agency on Aging
Cummins Mental Health Center
Plainfield Juvenile Correctional Facility

Henry County

Bennett House
Division of Family and Children
Henry County Hospital
Lifestream
New Castle School Corporation
Raintree

Howard County

Community Hospital
Robert J. Kinsey Youth Center
Saint Joseph Home
Villages of Indiana

Jackson County

Quinco Behavioral Health Systems

Jasper County

Rensselaer Care Center

Jay County

The Youth Bureau

Johnson County

Cardinal Service Management
Greenwood School Corporation
TARA Treatment Center
Valle Vista Health System

Kosciusko County

Bowen Center
KCH Home Care

LaPorte County

Family and Community Services, Inc.
LaPorte Hospital and Health Services
Michigan City Alternative School
Swanson Center
Visiting Nurses Association

Lake County

Addiction Counseling and Family Services
African-American Achievers, Inc.
Bethany Christian Services
Catholic Family Service
The Community Hospital-Social Services
Crisis Center Alternative House
East Chicago School Corporation
Edgewater System for Balanced Living
Gary Community School Corporation
Gary Neighborhood Services, Inc.
Griffith Public School Corporation
Hammond Public School Corporation
Hoosier Boy's Town, Inc.
Hospice of the Calumet Area
Human Beginnings Outpatient Mental Health Center
Lake County Office of Family and Children
Lakeside Counseling
Lutheran Home of Northwest Indiana
The Methodist Hospitals-Adult Behavioral Medicine
The Methodist Hospitals-Health Start Program
The Methodist Hospitals-Rehab Centers
The Methodist Hospitals-U.S. Steel Employee Assistance Program
Merrillville Public School Corporation
Premier Hospice
PSI Services, Inc.
River Forest Public School Corporation
Southlake Center for Mental Health-Century Program
Southlake Center for Mental Health-Community Assistance
Southlake Center for Mental Health-Health Services/Forensic Department
Southlake Center for Mental Health-Outpatient Services
Southlake Center for Mental Health-Placement Diversion Program
St. Anthony's Medical Center
St. Catherine Hospital-Behavioral Health Services
St. Catherine Hospital-Continuum Care Department
St. Jude House
St. Margaret Mercy Hospital-Behavioral Medicine Outpatient Center
St. Margaret Mercy Healthcare Centers
Tri-County Community Mental Health Center

Madison County

Anderson Center of St. John's
Anderson Community Schools
Anderson Psychiatric Clinic
Anderson School Corporation
Anderson University
Community Hospital
Madison County Youth Center

Marion County

Adult and Child Mental Health Center
African-American Family Life Education
Altenheim Community
Alzheimer's Association
American Village
Behavioral Care South
Better Together
Big Sisters of Central Indiana
Bosma Rehabilitation Center
Boys and Girls Clubs of Indianapolis
Breaking Free
Bridges to Success
Brookview Healthcare Rehabilitation
CICOA-The Access Network
COVOH Foundation, Inc.
Catholic Social Services
Center Township Trustee
Child Advocates, Inc.
Children's Bureau
Christamore House
Clarian Homeless Initiative Program
Coalition Against Domestic Violence
Coburn Place, Safe Haven
Coleman Adoption Services
Columbia Women's Hospital
Community Addiction Services of Indiana
Community Alliance of Far Eastside (CAFE)
Community Centers of Indianapolis
Community Hospital East
Community Hospital North
Community VNA Hospice
Concord Community Center
Consumer Credit Counseling
Cummins Mental Health Center
Damien Center
East 91st Street Christian Church
Exodus Refugee and Immigration
Fairbanks Hospital
Family Advocacy Center
Family Counseling Center
Family Developmental Service
Family Service Association
Family Works
Father Research Center
Forest Manor Multi-Service Center
Gallahue Mental Health
Gennesaret Free Clinic
Hawthorne Community Center
Homeless Initiative Program
IU Cancer Center
Indiana Civil Liberties Union
Indiana Community Cancer Care
Indiana Department of Corrections
Indiana Department of Mental Health
Indiana School for the Deaf
Indiana State Board of Health
Indiana Women's Prison
Indiana Youth Advocate Program
Indiana Youth Services Association
Indianapolis Foundation
Indianapolis Housing Agency
Indianapolis Juvenile Correction Facility
Indianapolis Police Department
Indianapolis Public Housing
Indianapolis Public Schools
Indianapolis Urban League
Information and Referral Network
Interfaith Hospitality Network
Jewish Community Center
John J. Boner Community Center
Julian Center
Kids Peace National Centers
LaRue Carter Hospital
Lawrence Township Schools
Life Spring
Light of the World Church, Project Impact
Lutherwood
Marion County Children's Guardian Home
Marion County Division of Family and Children
Marion County Health Department
Marion County Prosecutors Office
Martin Luther King Multi-Service Center
Mary Rigg Neighborhood Center
Methodist Hospital
Midtown Mental Health Center
Miller's Merry Manor
NASW-Indiana Chapter
New Beginnings High School
Noble of Indiana
Northwest Manor Healthcare
Office of Neighborhood Resources
Options for Better Living
Partners in Housing
Pike Township School Corporation
Planned Parenthood-Central and Southern Indiana
Project Impact, INDPLS
Quest for Excellence
Reach for Youth
Robinson AME Church
Safe Haven
Saint Elizabeth's Home
Saint Francis Hospital
Saint Vincent Hospital
Salvation Army and Harbor Light Center

Senior Health Insurance Information Program
Southeast Multi-Service Center
Stop Over
Supportive Systems, LLC
Technical Training Services
United Senior Action
United Way-Community Service Council
Veteran Affairs Medical Center
Villages of Indiana
Visiting Nurses Service
Vivian Smith Home
Volunteers of America of Indiana
Warren Township Schools
Wellness Community
Winona Hospital
Wishard Hospital
Women's Hospital Genesis Center
YWCA

Marshall County

Behavioral Health Care

Miami County

Four County Counseling Center

Monroe County

Amethyst House
Area 10 Agency on Aging
Bell Trace Retirement Community
Bloomington Correctional Facility
Bloomington Hospital
Catholic Social Services
Center for Behavioral Health
Child and Adolescent Services
Community Kitchen
Family Service Association
Family Solutions
First Step Program
Forest Hills Special Education
Hospice of Bloomington
Indiana University:
 Child Advocacy Project: Schools of Social Work
 and Law
Indiana University Health Service
Indiana University Institute for Family and Social
 Responsibility
Middle Way Crisis Shelter and Transitional Housing
Monroe County Community Schools
Monroe County Division of Family and Children
 Services
Monroe County United Ministries
Options for Better Living
Perry Township Trustee
Project Breakaway
Public Health Nursing
Shalon Center
Shelter, Inc.
Southern Indiana Center for Independent Living
Stonebelt Center
21st Century Schools Program
Villages of Indiana

Newton County

North Newton School Corporation

Porter County

Fountainview Place Nursing and Rehabilitation Center

Midwest Center for Youth and Families Residential Therapy

The Niequist Center for Residential Care

Porter Starke Mental Health

St. Mary Medical Center

Valparaiso Community School Corporation

Putnam County

Old National Trail Special Service Cooperative

Randolph County

Randolph County Development Center

Rush County

Dunn Medical Health Center

Harcourt Mental Health Services

Substance Abuse Treatment Center/Tara

St. Joseph County

Alzheimer's Association

American Cancer Society

American Heart Association

American Red Cross

Battell Center Community Activity Center

Battell Senior Workers, Inc.

Big Brothers and Big Sisters

Bohomie Counseling Center

Catholic Charities

Center for the Homeless

Child Protective Services

Children's Campus

Community Resource Center

Family and Children's Services, Mishawaka

Family and Children's Services, South Bend

Family Learning Center

First Presbyterian Church of South Bend

Hannah's House

Holy Cross Counseling Group

Holy Cross Living Center

Hope Rescue Mission

Hospice of Saint Joseph County: Social Work

Juvenile Probation Department of St. Joseph

La Casa de Amistad

Madison Center and Hospital

Madison Center for Children

Memorial Hospital

Meridian Nursing Home

Near West Side Neighborhood Organization

Options Institute

Salvation Army

Samaritan Counseling Center

School City of Mishawaka

South Bend Community Health Center

South Bend Community School Corporation

South Bend Heritage Foundation

South Bend Police Department

St. Joseph County Visiting Nurse Association

St. Joseph Health Center

St. Joseph Juvenile Justice Center

St. Joseph Medical Center

St. Vincent de Paul Society

Turning Point Clinical Services

Visions Counseling Center

Visiting Nurse Association of Michiana

WIC Program

Women's Care Center

Workforce Development Service

YMCA of Michiana

Youth Service Bureau of St. Joseph County

YWCA

Tippecanoe County

Charter Behavioral Health System

Lafayette Urban Ministry

Purdue University Student Health Center

Villages of Indiana

Wabash Valley Hospital

Wayne County

AIDS Task Force

Area IV In-home Community Service Agency

Division of Family and Children

Dunn Mental Health Center

Friends Fellowship

Golden Rule Nursing Home

Green Acres

Headstart

Human Rights Commission

Oakridge Nursing Home

Reid Hospital and Health Care Service

Richmond Community School

Richmond State Hospital

Wayne County Probation

Wernle Children's Home

Out-of-State Agencies

Brethren Home

Cancer Family Care, Ohio

Chicago Fire Department/Employee Assistance Program, Illinois

Child Welfare League of America, Washington, D.C.

Georgetown Ridge Farm School, Illinois

Illinois Department of Children and Family Services, Illinois

Reavis School District 158, Illinois

Sunny Ridge Family Center/Healing the Children, Illinois

Thresholds, Illinois

Woodlands Behavioral Health, Michigan

International Agencies

Cardiff Social Services, Cardiff, Wales

Christel House, Mexico City, Mexico

Family Advocacy Center, Ramstein Air Base, Germany

Hounslow Community Mental Health Team, London, England

Preswylfa Family Center, Cardiff, Wales

Universidad Nacional de Lanus, Buenos Aires, Argentina

IUPUI UNIVERSITY COLLEGE



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Contents

555	University College
555	Honors Certificates
555	Laptop Program
555	A Partnership for Academic Excellence
555	Learning Communities
555	Learning Center
555	The Student Mentor Program
556	Academic Advising
556	Checksheets
556	Do's and Don'ts of Advising at the University College's Advising Center
556	The Merkler Style Preference Inventory (MSPI)
556	Major Decisions Workshop
556	Retention, Probation, Dismissal, and Reinstatement Policy
556	Probation
556	Dismissal
556	Reinstatement
557	Certification to a Degree-Granting School
557	General University College Information
557	Faculty

University College

University College is the academic unit at IUPUI that provides a common gateway to undergraduate programs for entering students. The University College coordinates existing university resources and develops new initiatives to promote academic excellence and enhance students' persistence. It provides a setting where faculty, staff, and students join to make IUPUI a supportive and challenging environment for learning.

The University College provides advising and support services for beginning undergraduate students. University College's staff and faculty assist students who have not yet decided on a major, who are still learning what a college education entails, or who have not yet been admitted to the school of their choice. Students will be transferred as soon as possible to one of the degree-granting schools or divisions of the university.

The mission of the University College is to

1. Promote student learning
2. Focus on individual student success
3. Establish its own traditions and recognition of accomplishments
4. Provide a quality first-year experience
5. Develop strong connections with the degree-granting units
6. Promote faculty and staff development
7. Create a community that values diversity
8. Implement collaborative governance built on individual responsibility
9. Promote intentional reflection and assessment

Honors Certificates

Certificates are awarded to eligible students for either honors or highest honors status in an academic year. Students with a GPA from 3.7 to 4.0 receive highest honors; those from 3.30 to 3.69 receive high honors; and those from 3.0 to 3.29 receive honorable mention. On average, more than 3,000 students in University College are awarded certificates in an academic year.

Laptop Program

The University College has a Laptop Program for undergraduate students. Laptops equipped with the latest software are loaned to students for use on the second floor of the University College building when students need to complete reports, papers, graphic presentations, and e-mail correspondence. Students can pick up laptops at the Learning Center, UC 2006. For more information, call (317) 274-4818.

A Partnership for Academic Excellence

Students enter into a partnership with University College for their academic success. University College asks students to commit to this partnership. As part of this partnership, the university will provide resources to help students reach their academic goals. The students' responsibility is to work at their highest academic level and to strive for academic excellence in their studies.

University College's role in this partnership is to help students

- acquire information needed to take advantage of the educational opportunities available to them;
- define their goals and plan appropriate academic programs and strategies; and
- meet requirements for entry into a degree-granting school.

University College carries out this role by providing

- Mentoring
- Learning Communities
- Academic Advising
- Student Resource Center
- University Writing Center
- Technology Support
- Career Counseling
- Honors Program
- Student Activities
- Community Service Projects
- Adaptive Educational Services
- Math Assistance Center
- Structured Learning Assistance

The students' role in this partnership is to

- get to know their professors. Visit their offices. Ask questions. Take advantage of their love of teaching and their intellectual excitement for their subject area.
- stay in contact with their academic advisors. Feel welcome to discuss any factors that may affect their work and success at IUPUI.
- attend all classes.
- complete all assignments on time.
- allow sufficient time for learning out of class. We recommend three hours of outside study (assignments, reading, academic clubs, service projects, etc.) per week for each credit hour of class.
- enjoy the intellectual challenges and opportunities that the decision to attend IUPUI brings.

This Partnership for Academic Excellence is a cooperative approach to academic success between the University College and students. Each student understands and agrees to the roles and responsibilities stated. This is not a binding contract or a legal document; rather it is a sincere good faith expression of a partnership to help students achieve their academic goals.

Learning Communities

All IUPUI Learning Communities include a first-year experience class. Some Learning Communities link two or more classes, and some are specifically designed to introduce students to their majors. All Learning Communities offer students increased opportunities to make new friends and to meet members of the faculty and staff who are especially interested in first-year students. Students enrolled in Learning Communities are encouraged to get to know each other, to form study groups, and to learn how to take full advantage of their college experience.

Each Learning Community has an instructional team led by a faculty member and includes a student

mentor, an academic advisor, and a librarian. The instructional team shapes the learning environment to provide participants with as much academic support as possible. The student mentor works with students inside and outside of class to increase academic success. The librarian and the academic advisor work with students throughout the semester in each Learning Community to ensure that students are comfortable using the library and that they have important information about course requirements, career and major selections, university regulations, and academic policies. Learning Community students also learn to use the computer systems on the IUPUI campus and to communicate through e-mail.

The IUPUI Learning Community program offers a wide selection of classes. Each Learning Community has its own special characteristics. Descriptions of all the Learning Communities are available. The University College academic advisors assist students in selecting the one that best suits their needs. Students then register for their Learning Community when they register for their other classes. Learning Community programs are a joint project between the University College and undergraduate schools, including the Schools of Allied Health Sciences, Business, Education, Engineering and Technology, Liberal Arts, Music, Nursing, Physical Education, Public and Environmental Affairs, Science, and Social Work, as well as the Department of Informatics.

What are the advantages of participation in Learning Communities? Students who have been enrolled in Learning Communities report that they get to know a small group of classmates quickly. They learn to study together, collaborate on projects, and depend on each other for additional support in the classroom.

Learning Center

The Learning Center is devoted to students helping students. The center, which includes the Resource Center and the Student Mentor Program, is on the second floor of the University College Building (UC).

The Resource Center is a student-staffed referral service open to all IUPUI students. Students find tutors, campus resource numbers, help with studying and time management, techniques for taking exams, and information on the Student Mentor Program. All services are confidential and free of charge. For information about the Resource Center, call (317) 274-4818.

The Student Mentor Program

Groups of students work together with a student mentor to better understand difficult course material. This collaboration provides an enriching environment where students strengthen academic skills and build community.

Mentors are students who have successfully completed a course and are available to help other students review material in undergraduate courses such as psychology, math, economics, chemistry, and biology. They also share helpful study skills and test-taking techniques. The Student Mentor Program is free to IUPUI students. For more information, contact the Learning Center in the University College at (317) 274-4818.

Academic Advising

The advisors in the University College help students choose an appropriate major, develop a plan for completing the requirements for transferring to a school as quickly as possible, and identify university resources students can use to improve their academic standing. Most students find it helpful to meet with their advisor at least once a year to review their academic plans and to check on changes in degree requirements. In addition, most schools join the University College in offering information sessions that review degree requirements and procedures for admission to the major. Students can call the school they are interested in for information about the date and location of these sessions. All students are required to meet with their advisor during the first semester at IUPUI.

Checksheets

The University College provides checksheets outlining academic requirements for each major area. After students have obtained student codes from Integrated Technologies in the Technology Building, they may also review checksheets at any time through the University College Web site at www.universitycollege.iupui.edu. (Click on "Academic Advising" and then "College Degree/Requirements.")

In addition to the checksheets, University College provides all its students with the University College Student Manual, which contains articles on many topics vital to beginning students. The following excerpt from the manual provides hints for maximizing each advising session. Students should consult the manual for other helpful sections.

Do's and Don'ts of Advising at the University College's Advising Center

Academic advising is a must. To get the most out of the experience, remember these do's and don'ts:

Do

Do see your University College advisor.

Do see your advisor when he or she can spend time with you. Periods after registration tend to be less hectic for students and the University College. Late afternoon is a good time for walk-in meetings with your advisor.

Do keep your own records (e.g., grade reports, classes taken, etc.). Bring them with you to assist your advisor.

Do assert yourself. Ask questions! Repeat questions and clarify answers.

Do take responsibility for reading about those rules and requirements that affect you.

Do get answers in writing, with a copy for you and one for your file.

Do ask for another advisor if you want to change your advisor at any time.

Don't

Don't take advice from just anyone.

Don't wait until registration periods to see your advisor.

Don't assume that your advisor has access to all of your records. Keep your materials together to assist the advisor.

Don't assume that your advisor will automatically tell you everything you need to know.

Don't assume that only your advisor (and not you) should be familiar with the university's rules and regulations.

The Merkler Style Preference Inventory (MSPI)

This inventory is available to all IUPUI students free of charge at computer clusters on campus and online at the Web site (<http://testing.tc.iupui.edu/online/merkler/>). With this very user-friendly resource, students can start identifying their unique values, personality, interests, and skills and determine their preferred style of learning, working, and dealing with the world. It takes about 30 minutes and must be completed in one session because responses will be erased when the student exits the program. After completion of the test, students need to make an appointment with a University College exploratory advisor to discuss the 7- to 14-page computer-printed report, which includes students' profiles and lists of the IUPUI courses and appropriate majors. With this information, the advisor can interpret the report and help identify academic majors and specific courses that may lead the student to a satisfying career. Students need to call (317) 274-6623 for an appointment and must bring the printed report for interpretation.

Major Decisions Workshops

Academic advisors from the University College and the IUPUI Career Center provide free, one-hour workshops several times a semester. The workshop gives students an overview of the career decision-making process, discusses the relationship between majors and careers, and engages students in exercises that will start the major decision process. For information or to reserve a seat in one of these workshops, call (317) 274-2554.

Retention, Probation, Dismissal, and Reinstatement Policy

Probation

Students whose cumulative grade point average (GPA) falls below 2.0 will be placed on probation and will be required to meet standards set by IUPUI in order to continue in college. All students will be allowed at least one semester of probation prior to being academically dismissed. Students will be informed of their probationary status by letter. While on probation, students must meet with an advisor before enrolling each semester.

Students may continue on probation when their semester GPA is 2.0 or above but their cumulative GPA is below 2.0.

Students will be removed from their probationary status once their cumulative GPA is at least 2.0.

Dismissal

Students on probation who have completed a minimum of 12 IUPUI GPA hours are subject to dismissal if they fail to attain a GPA of at least 2.0 in

any two consecutive semesters (fall and spring) and their cumulative GPA is below 2.0.

Students who are dismissed for the first time must sit out for a minimum of one regular (fall or spring) semester and petition by the established deadlines to be reinstated. Reinstatement is not automatic. Students' chances of readmission will be enhanced by taking workshops, removing grades of incomplete, undertaking assessment of their academic problems, and providing evidence of their ability to do successful academic work upon their reinstatement to IUPUI.

Students dismissed two or more times must remain out of school for two regular (fall and spring) semesters and petition by the established deadlines to be reinstated. Readmission after a second dismissal is extremely rare. Students' chances of readmission will be enhanced by taking workshops, removing grades of incomplete, undertaking assessment of their academic problems, and providing evidence of their ability to do successful academic work upon their reinstatement to IUPUI.

Reinstatement

Students petitioning for reinstatement after being dismissed from IUPUI must demonstrate by petitions and interviews that they have prepared themselves to have a reasonable chance of success in their study at IUPUI. Reinstatement will be the decision of the school to which the students are petitioning.

Students who are reinstated will be classified as probationary students until their cumulative GPA is 2.0. During the first regularly enrolled term on probation, the student must achieve a semester GPA of at least 2.3. In each subsequent semester on probation, the student must achieve a semester GPA of 2.0. Failure to meet the semester GPA requirement will result in dismissal.

Note

In order to ensure equity between intercampus transfer students and transfer students from outside the IU system, only IUPUI grades will be considered in determining probation and dismissal.

The School of Liberal Arts, School of Science, and University College, in agreement with a common policy, will honor a student's academic probation and dismissal status from any of these units.

University College policy concerning academic dismissal requires that students who are dismissed for the first time from IUPUI, IU Bloomington, IU regional campuses, or other IUPUI schools, sit out for a minimum of one regular (fall or spring) semester and petition by the established deadlines to be reinstated.

Students who were reinstated before spring semester 2002 will follow the requirements of their current contract until their cumulative GPA is 2.0.

Students who have been academically dismissed and have not been enrolled at IUPUI for five or more years do not need to petition for readmission.

University College will assess the academic dismissal reinstatement fee of \$50.00 to students who have been dismissed for academic reasons and wish to return to university study. The fee will be assessed at University College at the time a readmission petition is submitted.

Certification to a Degree-Granting School

The University College will certify (transfer) students to a degree-granting school when they have met the following criteria:

1. Completed the minimum number of credit hours and specific courses required for admission to a particular school.
2. Achieved the required grade point average for admission to a specific school.
3. Indicated to an academic advisor their choice of a major area of study.

Upon completion of 56 credit hours, students must be certified to a degree-granting school. Some schools have competitive admission and require submission of an application at least a month before the start of a semester. In addition, if students are uncertain about degree requirements or can't decide on a major, it is essential that they talk with an academic advisor before reaching the 56 credit hour limit.

General University College Information

General Information274-2237
 FAX274-4016
 Learning Center 274-4818
 Student Activity Center Information..... 278-2533
 Questions answered by e-mail:advising@iupui.edu
 Web Site: www.universitycollege.iupui.edu

Faculty

University College provides a forum for general education through the teaching, advising, and curriculum-development activities of the faculty appointed to the university. The faculty represents a unique governing body that comes together across disciplinary lines for the purpose of enhancing students' learning experience.

University College Faculty

Anderson, Betty J., B.A. (*Mississippi College, 1960*); M.A. (*Butler University, 1977*); *Lecturer in English*

Appleby, Drew C., B.A. (*Simpson College, 1969*); M.S. (*Iowa State University, 1971*); Ph.D. (*Iowa State University, 1972*); *Professor of Psychology, Director of Undergraduate Studies, Department of Psychology*

Ardemagni, Enrica, B.A. (*University of Arkansas, 1973*); M.A. (*University of Arkansas, 1977*); Ph.D. (*University of Wisconsin, 1985*); *Associate Professor of Spanish; Coordinator, Spanish Program; and Director, Certificate in Translation Studies Program*

Baker, Sarah, A.S., *Radiologic Technology (Indiana University, 1973)*; B.S. (*Indiana University, 1974*); M.S. (*Indiana University, 1979*); Ed.D., *Higher Education (Indiana University, 2001)*; *Associate Professor of Radiologic Sciences*

Borden, Victor Mark Haifleigh, B.A. (*University of Rochester, 1979*); M.S. (*University of Massachusetts, 1983*); Ph.D. (*University of Massachusetts, 1987*); *Associate Vice Chancellor, Information Management and Institutional Research; Associate Professor of Psychology, School of Science; and Adjunct Associate Professor of Education, School of Education*
 Boruff-Jones, Polly D., B.A. (*Indiana University, 1979*); M.L.S. (*Indiana University, 1996*); *Assistant Librarian, University Library*
 Boukai, Benzion, B.A. (*Haifa University, Israel, 1983*); M.A. (*Haifa University, Israel, 1985*); Ph.D. (*State University of New York at Binghamton, 1988*); *Professor and Chairperson, Department of Mathematical Sciences, School of Science*

Bringle, Robert Gordon, B.A. (*Hanover College, 1969*); M.S., (*University of Massachusetts, 1972*); Ph.D. (*1974*); *Professor of Psychology, School of Science*

Brothers, Linda R., Ph.D. (*Purdue University, 1984*); *Associate Professor of Home Economics and Chairperson of the Department of Tourism, Conventions, and Event Management*

Burr, David B., Ph.D. (*University of Colorado, 1977*); *Chairman and Professor of Anatomy; Professor of Orthopaedic Surgery, School of Medicine; Adjunct Professor of Anthropology, School of Liberal Arts; Professor of Biomedical Engineering (Purdue University)*

Carlisle, Pamela, B.S.N. (*Ball State University, 1982*); M.A. (*Ball State University, 1983*); Ph.D., *Educational Psychology/Early Childhood Education (Indiana University, 1992)*; *Visiting Lecturer in Nursing*

Christian, Joe C., M.D., Ph.D. (*University of Kentucky, 1964*); *Associate Dean for Basic Sciences and Regional Centers; Professor of Medical and Molecular Genetics*

DeWester, Janet, B.A. (*Purdue University, 1975*); M.A. (*Purdue University, 1979*); *Lecturer in Communication Studies*

Dunning, Jeremy David, A.B. (*Colgate University, 1973*); M.S., (*Rutgers University, 1975*); Ph.D., (*University of North Carolina, Chapel Hill, 1978*); *Dean, School of Continuing Studies; Professor of Geology; and Director of Institutional Research, Indiana University*

Galanti, Paul J., B.A. (*Bowdoin College, 1960*); J.D. (*University of Chicago, 1963*); *Professor of Law*

Gavrin, Andy D., B.S. (*Massachusetts Institute of Technology, 1983*); M.A. (*Johns Hopkins University, 1986*); Ph.D. (*Johns Hopkins University, 1992*); *Associate Professor of Physics, School of Science*

Garner, LaForrest D., D.D.S. (*Indiana University, 1957*); *Professor of Orthodontics*

Gleeson, Michael E., Ph.D. (*Syracuse University, 1973*); *Director, Undergraduate Programs; Associate Professor of Public and Environmental Affairs (IUPUI)*

Goodwin, Clifford, A.A.S., *Aviation Technology (Purdue University, 1969)*; B.S., *Supervision (1970)*; M.A., *Education (Ball State University, 1980)*; *Chair and Associate Professor of Organizational Leadership and Supervision*
 Haas, Linda L., B.A. (*Indiana University, 1972*); M.S. (*University of Wisconsin, Madison, 1973*); Ph.D. (*1977*); *Professor of Sociology, and Adjunct Professor of Women's Studies*

Halverson, Randall S., B.S. (*South Dakota State University, 1976*); M.Ed. (*South Dakota State University, 1990*); M.S. (*South Dakota State University, 1992*); M.L.S. (*Emporia State University, 1998*); *Assistant Librarian, University Library*

- Hamilton, Sharon, B.A. (*University of Winnipeg, 1969*); B.Ed. (*University of Manitoba, 1978*); M.Ed. (1982); Ph.D. (*University of London, 1986*); Professor of English; Chancellor's Professor; Director of Campus Writing; Director of the IU Faculty Colloquium for Excellence in Teaching
- Hatcher, Julie A., B.S. (*Indiana University, 1975*); M.S. (*Indiana University, 1988*); Research Associate, Service Learning; Associate Director, Center for Service and Learning; Adjunct Instructor, School of Education; Adjunct Instructor of Philanthropic Studies
- Huehls, Frances, B.A. (*Indiana University, 1973*); M.L.S. (*Indiana University, 1992*); M.A. (*Indiana University, 1998*); Ph.D. (*Indiana University, 2001*); Assistant Librarian, University Library
- Jackson, Barbara Dale, B.A. (*Hunter College, 1965*); M.A. (*University of Minnesota at Minneapolis-St. Paul, 1967*); Ph.D. (1973); Associate Dean of the University College; Associate Professor of Anthropology; Adjunct Associate Professor of Women's Studies
- Juillerat, Florence L., B.S. (*Purdue University, 1962*); M.S. (*Purdue University, 1967*); Ph.D. (*Purdue University, 1974*); Associate Professor of Biology, School of Science; Adjunct Associate Professor, Women's Studies, School of Liberal Arts
- Kuczkowski, Joseph, B.S. (*Canisius College, 1961*); M.S. (*Purdue University, 1963*); Ph.D. (*Purdue University, 1968*); Professor of Mathematical Sciences and Associate Dean for Academic Programs and Student Development, School of Science
- Kulsrud, William N., Ph.D. (*University of Texas at Austin, 1980*); Associate Professor of Accounting; Chair, Master of Professional Accountancy Program
- Langsam, Miriam Z., B.A. (*Brooklyn College, 1960*); M.S. (*University of Wisconsin, Madison, 1961*); Ph.D. (*University of Wisconsin, Madison, 1967*); Associate Dean of Student Affairs and Professor of History, School of Liberal Arts
- Lees, Norman Douglas, A.B. (*Providence College, 1967*); Ph.D. (*Northwestern University, 1973*); Chairperson and Professor of Biology
- Little, Monroe H., B.A. (*Denison University, 1971*); M.A. (*Princeton University, 1973*); Ph.D. (1977); Associate Professor of History and Director of Afro-American Studies
- Lowenkron, Ann, R.N. (*Columbia University, 1969*); D.N.S. (*Indiana University, 1995*); Assistant Professor of Nursing and Undergraduate Coordinator for the Family Health Department, School of Nursing
- MacKinnon, Joyce L., B.A. (*Ohio Wesleyan University, 1972*); M.P.T. (*Baylor University, 1974*); Ed.D. (*North Carolina State University, 1987*); Professor and Associate Dean for Academic Affairs, School of Allied Health Sciences
- Magjuka, Richard J., Ph.D. (*University of Chicago, 1986*); Associate Professor of Business Administration and Chairperson, M.B.A. Program and Distance Education — Indianapolis
- Malik, David J., B.S. (*California State University, 1968*); M.S. (1969); Ph.D. (*University of California, San Diego, 1976*); Professor of Chemistry, School of Science
- Marrs, Kathleen A., B.A. (*Illinois Wesleyan University, 1984*); Ph.D. (*University of Illinois, 1991*); Assistant Professor of Biology, School of Science
- McCormick, Martha, B.A. (*Earlham College, 1984*); M.L.S. (*Indiana University, 1987*); M.A. (*Emory University, 1992*); Graduate Certificate, Women's Studies (*Emory University, 2000*); Assistant Librarian, University Library
- Mesch, Debra J., Ph.D. (*Indiana University, 1990*); Assistant Professor of Public and Environmental Affairs, Graduate School, IUPUI
- Mikesky, Alan E., Ph.D. (*University of Texas, 1987*); Professor of Physical Education and Director of the Human Performance and Biomechanics Laboratory
- Mullen, E. Theodore, Jr., B.A. (*Davidson College, 1970*); Ph.D. (*Harvard University, 1976*); Associate Dean of the University College; Director of the Honors Program; and Professor of Religious Studies
- Ng, Bart, B.S. (*St. Joseph College, 1968*); M.S. (1970); Ph.D. (*University of Chicago, 1973*); Professor of Mathematical Sciences
- Nickolson, Richard Emory, B.F.A. (*Maryland Institute of Art, 1968*); M.F.A. (*Indiana University, 1972*); Associate Professor of Painting
- Nnaemeka, Obioma G., B.A., (*University of Nigeria, 1972*); M.A. (*University of Minnesota, 1977*); Ph.D. (1989); Associate Professor of French and Women's Studies; Adjunct Associate Professor of Afro-American Studies
- Orme, William, M.L.S. (*Indiana University, 1981*); Associate Librarian; Instructional Teams Leader; and Adjunct Faculty for School of Library and Information Science
- Osgood, Robert L., B.A. (*University of Oregon, 1976*); M.Ed. (*University of Vermont, 1982*); Ph.D. (*Claremont Graduate School, 1989*); Associate Professor of Education, School of Education
- Papke, David Ray, A.B. (*Harvard College, 1969*); J.D., M.A. (*Yale University, 1973*); Ph.D. American Studies (*University of Michigan, 1984*); R. Bruce Townsend Professor of Law and Professor of Liberal Arts
- Parrish-Sprowl, John, B.S. (*Ball State University, 1976*); M.A. (*Miami University, 1977*); Ph.D. (*Bowling Green State University, 1983*); Chairman, Department of Communication Studies, School of Liberal Arts
- Parsons, Michael, Ph.D. (*Indiana University, 1994*); Assistant Professor of Education
- Porter, Rebecca, Ph.D. (*Indiana University, 1991*); P.T. (1972); Associate Professor of Physical Therapy; Interim Executive Director of Enrollment Services; Interim Associate Vice Chancellor for Student Services
- Queiro-Tajalli, Irene, B.S.W. (*University of Buenos Aires, 1967*); M.S.W. (*Tehran School of Social Work, 1974*); Ph.D. (*University of Illinois, 1983*); Professor of Social Work; Director of Undergraduate Studies, School of Social Work
- Sauer, Mary L., B.A. (*Augustana College, 1968*); M.A.L.S. (*Valparaiso University, 1969*); Lecturer in English
- Sinha, Akhouri S.C., B.S. (*Mathematics, Bihar University, India, 1957*); B.S. (*Electrical Engineering, Banaras Hindu University, India, 1961*); M.S. (*Electrical Engineering, 1966*); Ph.D. (*Electrical Engineering, University of Missouri, 1969*); Professor of Electrical Engineering
- Stokes, Lillian, B.S.N. (*North Carolina Central University, 1966*); M.S.N. (*Indiana University, 1969*); Ph.D. (*Indiana University, 1997*); Associate Professor, School of Nursing
- Sunderwirth, Stanley, B.A. (*Tarkio College, 1951*); Ph.D. (*Ohio State University, 1955*); Professor of Chemistry, IUPUI Columbus
- Sutton, Susan B., B.A. (*Bryn Mawr College, 1969*); M.A. (*University of North Carolina, 1973*); Ph.D. (1978); Professor of Anthropology; Adjunct Professor of Women's Studies and Philanthropic Studies; Adjunct Professor of Anthropology, School of Arts and Sciences (IUB)
- Van Dis, Margot, B.S. (*University of Michigan, 1975*); D.D.S. (*University of Michigan, 1980*); M.S. (*University of Texas, 1985*); Associate Dean for Student Affairs and Professor of Dental Diagnostic Sciences, School of Dentistry
- Vermette, Rosalie A., B.A. (*University of Maine, 1968*); M.A. (*University of Iowa, 1970*); Ph.D. (1975); Professor of French and Adjunct Professor of Women's Studies
- Ward, Richard E., B.A. (*University of North Colorado, 1972*); M.A. (*University of Colorado, 1976*); Ph.D. (1980); Professor of Anthropology, School of Liberal Arts; Professor of Oral Facial Genetics

Watt, Jeffrey X., B.S. (*Michigan Technological University, 1983*); M.S. (*Purdue University, 1985*); Ph.D. (*Indiana University, 1990*); Associate Chair and Associate Professor of Mathematical Sciences, School of Science

Webb, Dorothy, B.S. (*Southern Illinois University, 1957*); M.S. (1958); Ph.D., (*Indiana University, 1970*); Professor of Communication Studies

Wolter, Robert Michael, B.S. (*Purdue University, 1997*); Visiting Lecturer in Organizational Leadership and Supervision

Zwirn, Enid E., R.N. (*Beth Israel Medical Center, 1962*); B.S. (*New York University, 1967*); M.P.H. (*University of Michigan, 1970*); Ph.D. (*Indiana University, 1997*); Associate Professor of Nursing



OTHER ACADEMIC PROGRAMS

Labor Studies
Union Building (UN) 503
620 Union Drive
Indianapolis, IN 46202
(317) 274-5025
www.indiana.edu/~labor00

Military Science
Union Building (UN) 317
620 Union Drive
Indianapolis, IN 46202
(317) 274-2691
www.iupui.edu/~armyrotc/iupurotc1.html



Contents

563 Labor Studies

563 Division of Labor Studies

- 563 Certificate, Minor, and Degrees
- 563 Labor Studies (LSTU) Courses
 - 563 Core Courses
 - 564 Other Courses
 - 564 Advanced Courses
- 564 Labor Studies Certificate and Degree Requirements
 - 564 Additional Requirements
 - 564 Required Areas of Learning
- 565 Labor Studies Credit Hour Requirements
- 565 Application and Admission
 - 565 Transferring Credit
 - 565 Application Fees
 - 565 Deadlines
- 565 Progress Options
 - 565 College Level Examination Program
 - 565 Independent Study by Correspondence
 - 566 Credit for Military Service
 - 566 Credit for Self-Acquired Competency
 - 566 Transfer of Self-Acquired Competency Credit within Indiana University
- 566 Academic Policies
 - 566 Student's Responsibility
 - 566 Grades
 - 566 Academic Standing and Progress
 - 567 Academic Probation
 - 567 Dismissal
 - 567 Retaking Courses Previously Failed—FX Policy
 - 567 Cheating and Plagiarism
 - 567 Academic Forgiveness Policy for Former IU Students
 - 567 Academic Forgiveness Policy for Students Dismissed from Other Institutions
 - 567 Graduation
 - 567 Graduation with Honors
 - 567 Confidentiality of Student Records
 - 567 Withdrawal from Courses
- 568 Union Education Program
 - 568 Fees and Fee Refund Policies and Schedule
 - 568 Fee Reductions and Financial Aid

568 Labor Studies Administrative Officers

568 IUPUI Labor Studies Faculty

568 IUPUI Labor Studies Professional Staff

568 Labor Studies Offices

Labor Studies

As a discipline, labor studies deals with work, the workplace, and workers and their organizations. It advances a body of knowledge that reflects the concerns of modern labor organizations.

As a program, labor studies enables students to serve more effectively as members and leaders in their organizations. Students can also gain a sense of the past and present contexts of work and unionism. Because union leaders need to be familiar with economics, communications, and other subjects, labor studies can assist them in mastering a broad range of learning.

The program encourages students to make socially useful choices in carrying out the many responsibilities of union membership, union leadership, and community citizenship.

Division of Labor Studies

The Division of Labor Studies traces its origin to the establishment of the Bureau of Industrial and Labor Services on the Bloomington campus in 1955. Renamed the Labor Education and Research Center (LERC) in 1964, this unit had a small staff conducting noncredit courses, conferences, and institutes around the state.

In the early 1970s, LERC grew and began to establish offices on other Indiana University campuses. In 1976, LERC became the Division of Labor Studies within the School of Continuing Studies. Programs were established leading to the Certificate in Labor Studies and to the Associate and Bachelor of General Studies degrees with concentrations in labor studies. In 1985, these two degree concentrations were extensively revised and became full-fledged majors in Associate of Science and Bachelor of Science degrees.

Beginning in the fall semester of 2002, the Division of Labor Studies will offer courses for graduate credit. For updated information concerning graduate courses in Labor Studies, consult the Web version of this bulletin by visiting bulletin.iupui.edu.

The Division of Labor Studies continues to offer an extensive noncredit Union Education Program (UEP) to meet the needs of unions throughout the state. For more information, see "Union Education Program."

Certificate, Minor, and Degrees

Through the Division of Labor Studies, Indiana University offers a Certificate in Labor Studies, a minor in labor studies, an Associate of Science in Labor Studies degree, and a Bachelor of Science in Labor Studies degree. Each combines work in a core of labor studies subjects with courses in other disciplines.

The division has a long history of working with unions in the state of Indiana to develop and deliver educational programs. These programs are

coordinated by members of the Division of Labor Studies faculty. They, along with associate faculty members, also instruct the courses. Faculty qualifications typically combine academic credentials with union backgrounds.

Labor studies programs are also available to people who cannot enroll in classroom-based courses on Indiana University campuses where the program is offered. By enrolling in labor studies courses through correspondence study, one can complete a growing number of courses. The Division of Labor Studies works closely with the Division of Extended Studies and its Independent Study Program.

Both classroom and correspondence methods offer the ability to transfer course work completed at most other accredited colleges and universities to Indiana University. On-campus students have the option of applying for credit for self-acquired competency (SAC) by completing a substantial portfolio and an interview. Credit for military service and for successful completion of College Level Examination Program (CLEP) tests in several subjects is available. Students may also mix classroom and correspondence study courses.

Labor Studies (LSTU) Courses

The following labor studies courses are offered in the classroom, as scheduled on the Indiana University campuses where the degrees are offered. Starred (*) courses are currently available through correspondence. Courses marked with a double star (**) are under development for correspondence. The abbreviation "P" refers to the course prerequisite(s), and "C" refers to the course corequisite(s).

The basic separation in the course list is between core courses (all 100- and 200-level courses, except L199, L290, and L299) and advanced courses (300-400 level).

Core Courses

L100 Survey of Unions and Collective Bargaining (3 cr.)* A survey of labor unions in the United States, focusing on their organization and their representational, economic, and political activities. Includes coverage of historical development, labor law basics, and contemporary issues.

L101 American Labor History (3 cr.)* A survey of the origin and development of unions and the labor movement from colonial times to the present. The struggle of working people to achieve dignity and security is examined from social, economic, and political perspectives.

L105 Contemporary Labor Problems (3 cr.)* An examination of some of the major problems confronting society, workers, and the labor movement. Topics may include automation, unemployment, international trade, and conglomerates; environmental problems; minority and women's rights; community relations; changing government policies.

L110 Labor and Society (3 cr.) An introduction to the changing role of labor in society. The course will emphasize a comparative approach to issues confronting labor organizations.

L200 Survey of Employment Law (3 cr.) Statutes and common-law actions protecting income, working conditions, and rights of workers. Topics include workers' compensation, unemployment compensation, fair labor standards, Social Security, retirement income protection, and privacy and other rights.

L201 Labor Law (3 cr.)* A survey of the law governing labor-management relations. Topics include the legal framework of collective bargaining, problems in the administration and enforcement of agreements, and protection of individual employee rights.

L203 Labor and the Political System (3 cr.)* Federal, state, and local governmental effects on workers, unions, and labor-management relations; political goals; influences on union choices of strategies and modes of political participation, past and present; relationships with community and other groups.

L210 Workplace Discrimination and Fair Employment (3 cr.) Examines policies and practices that contribute to workplace discrimination and those designed to eliminate it. Explores effects of job discrimination and occupational segregation. Analyzes Title VII, the Americans with Disabilities Act, and related topics in relation to broader strategies for addressing discrimination.

L220 Grievance Representation (3 cr.)* Union representation in the workplace. The use of grievance procedures to address problems and administer the collective bargaining agreement. Identification, research, presentation, and writing of grievance cases. Analysis of relevant labor law and the logic applied by arbitrators to grievance decisions.

L230 Labor and the Economy (3 cr.)* Analysis of the political economy of labor and the role of organized labor within it. Emphasis on the effect on workers, unions, and collective bargaining of unemployment, investment policy, and changes in technology and corporate structure. Patterns of union political and bargaining responses.

L240 Occupational Health and Safety (3 cr.)* Elements and issues of occupational health and safety. Emphasis is on the union's role in the implementation of workplace health and safety programs, worker and union rights, hazard recognition techniques, and negotiated and statutory remedies—in particular the OSHA Act of 1970.

L250 Collective Bargaining (3 cr.)* The development and organization of collective bargaining in the United States, including union preparation for negotiations; bargaining patterns and practices; strategy and tactics; economic and legal considerations.

L251 Collective Bargaining Laboratory (1-3 cr.) P or C: L250. Provides collective bargaining simulations and other participatory experiences in conjunction with L250.

L255 Unions in State and Local Government (3 cr.) Union organization and representation of state and municipal government employees, including patterns in union structure, collective bargaining, grievance representation, and applicable law.

L260 Leadership and Representation (3 cr.)

Organizational leadership issues for union, community, and other advocate organizations. Analyzes leadership styles, membership recruitment, and leadership development. Examines the role of leaders in internal governance and external affairs, including committee building, delegation, negotiations, and coalition building.

L270 Union Government and Organization (3 cr.)

An analysis of the growth, composition, structure, behavior, and governmental processes of U.S. labor organizations, from the local to the national federation level. Consideration is given to the influence on unions of industrial and political environments; to organizational behavior in different types of unions; and to problems in union democracy.

L280 Union Organizing (3 cr.) Explores various approaches and problems in private- and public-sector organizing. Traditional approaches are evaluated in light of structural changes in labor markets and workforce demographics. Topics range from targeting and assessments to committee building and leadership development.

L285 Assessment Project (1 cr.) Capstone experience for associate degree students.

Other Courses**L199 Portfolio Development Workshop (1 cr.)**

Emphasis on developing learning portfolios as foundation documents for academic self-assessment and planning and as applications for self-acquired competency (SAC) credit. Applies only as elective credit to labor studies degrees.

L290 Topics in Labor Studies (1-3 cr.)*

A variable title course, L290 can be repeated for credit with different subjects. The transcript will show a different subtitle each time the course is taken. Some courses focus on contemporary or special areas of labor studies. Others are directed toward specific categories of employees and labor organizations. Inquire at Division of Labor Studies offices.

L299 Self-Acquired Competency in Labor Studies (1-15 cr.) See page 6 of this bulletin for a description of Self-Acquired Competency.

Advanced Courses

L315 The Organization of Work (3 cr.) Examines how work is organized and how jobs are evaluated, measured, and controlled. Explores social and technical elements of work through theories of scientific management, the human relations school of management, and contemporary labor process literature.

L320 Grievance Arbitration (3 cr.)*

(Recommended only after L220 or with permission of instructor.) The legal and practical context of grievance arbitration, and its limitations and advantages in resolving workplace problems. Varieties of arbitration clauses and the status of awards. Students analyze, research, prepare, and present cases in mock arbitration hearings.

L350 Issues in Collective Bargaining (3 cr.)

Readings and discussion of selected problems. Research paper usually required.

L360 Union Administration and Development (1-3 cr.)

Practical and theoretical perspectives on strategic planning, budgeting, and organizational decision making. Addresses the needs and problems of union leaders by studying organizational change, staff development, and cohesiveness within a diverse workforce. May be repeated for up to 3 credits with department approval.

L375 Comparative Labor Movements (3 cr.)*

Labor movements and labor relations in industrial societies from historical, analytical, and comparative perspectives. Emphasis on interaction between unions and political organizations, national labor policies, the resolution of workplace problems, the organization of white collar employees, and the issues of worker control and codetermination.

L380 Theories of the Labor Movement (3 cr.)*

Perspectives on the origin, development, and goals of organized labor. Theories include those that view the labor movement as a business union institution, an agent for social reform, a revolutionary force, a psychological reaction to industrialization, a moral force, and an unnecessary intrusion.

L385 Class, Race, Gender, and Work (3 cr.)

Historical overview of the impact and interplay of class, race, and gender on shaping U.S. labor markets, organizations, and policies. Examines union responses and strategies for addressing class, race, and gender issues.

L390 Topics in Labor Studies (1-3 cr.)*

A variable title course, L390 can be repeated for credit with different subjects. The transcript will show a different subtitle each time the course is taken. Some courses focus on contemporary or special areas of labor studies. Others are directed toward specific categories of employees and labor organizations. Inquire at Division of Labor Studies offices.

L420 Labor Studies Internship (1-6 cr.)*

Application of knowledge gained in the classroom in fieldwork experience.

L430 Labor Research Methods (3 cr.) Study of research design, methods, techniques, and procedures applicable to research problems in labor studies.

L480 Senior Seminar or Readings (3 cr.)*

Designed as either a classroom seminar or directed reading course. Addresses current issues, historical developments, and other labor-related concerns. Topics may vary each semester.

L495 Directed Labor Study (1-6 cr.)*

A variable credit course, L495 may be repeated for a maximum of 6 credit hours. Students arrange to study with an individual labor studies faculty member, designing a course of study to suit their individual and varied needs and interests. The contract might include reading, directed application of prior course work, tutorials, or internships. Competencies are assessed through written papers, projects, reports, or interviews.

L499 Self-Acquired Competency in Labor Studies (1-15 cr.) See page 23 of this bulletin for a description of self-acquired competency.

Beginning in the fall semester of 2002, the Division of Labor Studies will offer courses for graduate credit. For updated information concerning graduate courses in Labor Studies, consult the Web version of this bulletin by visiting bulletin.iupui.edu.

Labor Studies Certificate and Degree Requirements

Courses from three groupings are used by students to complete certificate and degree requirements. These groupings are: labor studies courses, required areas of learning, and electives. The chart below shows the credit hour distribution required for each certificate and degree in labor studies.

Additional Requirements

For the Associate of Science in Labor Studies degree, at least 12 credit hours must be earned from Indiana University, 10 of these after admission to the School of Continuing Studies. No more than 15 credit hours may be earned within a single subject other than labor studies.

For the Bachelor of Science in Labor Studies degree, at least 24 credit hours must be earned from Indiana University, 20 of these after admission to the School of Continuing Studies. No more than 21 credit hours may be earned within a single subject other than labor studies. Thirty (30) credit hours must be earned in 300- and 400-level courses, and at least 12 of the 30 credit hours must be earned in labor studies courses. Credits earned by self-acquired competency, DANTES, and CLEP cannot be applied to these requirements.

For the Certificate in Labor Studies and both the associate and bachelor's degrees, an overall minimum grade point average of 2.0 (C) must be maintained. Courses in which grades of D are received may be counted only as electives. For the associate and bachelor's degrees, courses within a major area must be in at least two different subjects. For additional standards, see the section of this bulletin titled "Academic Policies."

A minor in labor studies requires the completion of 15 credit hours consisting of 6 credits from our list of core courses and 9 additional credits to be determined through consultation with the campus faculty.

Required Areas of Learning

Following are representative subjects and courses falling under each of the three major areas of learning listed under certificate and degree requirements. Note that ENG W131 and one additional writing course within the arts and humanities area are required for degree programs. Also, only one computer technology course applies to the science and mathematics requirement. Additional courses in computer technology count as electives. For information about subjects not listed here (for example, women's studies) and about specific courses, contact a Division of Labor Studies office.

Labor Studies Credit Hour Requirements

Group	Subgroup	Certificate in Labor Studies	Associate of Science in Labor Studies	Bachelor of Science in Labor Studies
Labor studies	Core courses	15	15	15
	Additional labor studies	3	12	27
	Arts and humanities	3	12 ¹	12 ¹
	Social and behavioral sciences	3	9 ²	12 ²
	Science and mathematics	3	6 ³	15 ⁴
	Additional credit hours from one area above	3		12
Electives			6	27
Total credit hours		30	60	120

¹ENG W131 and one additional writing course required

²One course in economics required; microeconomics recommended

³One course in computer science/technology recommended

⁴One course in computer science/technology required

Arts and Humanities

Afro-American Studies
Classical Studies
Comparative Literature
English
Fine Arts
Folklore
History
History and Philosophy of Science
Journalism
Music
Philosophy
Religious Studies
Speech and Communications
Theater and Drama
All language courses

Sciences and Mathematics

Astronomy
Biology
Chemistry
Computer Science/Technology
Geology
Mathematics
Physics
Zoology

Social and Behavioral Sciences

Anthropology
Economics
Geography
Linguistics
Political Science
Psychology
Sociology

Electives

Students may select any of the courses offered by Indiana University to fulfill elective requirements. Students are encouraged to consult with their academic advisors and to concentrate their elective course work in related subject fields.

Application and Admission

The certificate and degree programs in the Division of Labor Studies are open to all qualified high school graduates or persons with the General Education Development (GED) certificate. Adults over 21 who do not meet these requirements may be admitted on a provisional basis and may apply for regular admission upon successful completion of 12 credit hours. Applicants must submit the following:

1. A completed application for admission to the Labor Studies Program.
2. A nonrefundable application fee payable to Indiana University, if the applicant has not previously been admitted to Indiana University.
3. A high school transcript, if there is no college work.
4. An official transcript of previous college work, mailed by the college.

Applicants should forward all application materials to the Division of Labor Studies office on the campus where they intend to enroll. For addresses, see the list on page 12 of this bulletin. Applicants who do not live within commuting distance of a campus and who wish to participate through Independent Study by Correspondence should send materials to the Bloomington office, attention External Study. International students should request the international application for admission and related materials from the Bloomington office.

Citizens of other countries, including those in the United States on immigration visas, must also submit TOEFL scores and a 300- to 500-word handwritten essay. The essay is to be written on a topic of the student's choice and may include autobiographical information. Students who intend to pursue the degree on an Indiana University campus must also submit the international application for admission.

Transferring Credit

When official transcripts are received, they will be forwarded to the admissions office for evaluation.

Within a few weeks the applicant should receive official notice of admission and a credit transfer report indicating which courses are accepted at Indiana University (generally those in which the applicant earned grades of C or better from accredited institutions). The Division of Labor Studies office will then prepare a summary of how these courses apply to labor studies certificate and degree requirements.

At this point, if not before, students should proceed to plan their programs in consultation with their advisors and to enroll in courses. Students should check with the Division of Labor Studies office on the campus where they plan to enroll for schedules and directions.

Correspondence students should contact the Bloomington office for advising and should use the booklet titled *Independent Study University Courses*.

Application Fees

Applicants who have not previously attended Indiana University must pay a nonrefundable application fee at the time they submit their application. Application fees vary from campus to campus and are subject to change. Current fees for U.S. citizens/international students are as follows:

University-wide (non-campus-based)	\$30
IU Bloomington	\$35
IUPUI (Indianapolis)	\$35
IU Kokomo	\$30
IU Northwest (Gary)	\$25
IPFW (Fort Wayne)	\$30
IU South Bend	\$35
International Students	\$50

Deadlines

Students who wish to take regular on-campus courses should check with the Division of Labor Studies office on that campus for any application and enrollment deadlines.

Progress Options

One or more of the methods listed in this section may provide the labor studies student with a means of receiving Indiana University credit without taking conventional classroom-based courses. This allows accelerated progress toward a labor studies degree. With prior approval, a maximum of 6 credit hours of graduate-level course work can be applied to the Bachelor of General Studies degree. The application of more than 6 graduate credit hours must have the dean's approval.

College Level Examination Program

The College Level Examination Program (CLEP) has tests available in a variety of subject areas. Students whose scores exceed a certain level on tests accepted by Indiana University receive credit (3 credit hours for most exams). CLEP brochures are available at Division of Labor Studies offices.

Independent Study by Correspondence

Students who do not have access to an Indiana University campus may take courses through Independent Study by correspondence. Campus-based students may also complete degree requirements through correspondence study.

The Indiana University Independent Study Program offers more than 200 university-level correspondence courses. Students enrolling in independent study courses receive a learning guide that contains reading assignments for the required textbooks, discussion sections, and written assignments. Lessons are sent to an instructor, who comments on and grades student work. Most courses have one or more examinations, which must be taken under supervision at an accredited school. Students are allowed one year to complete a course.

External labor studies students should request course listings and enrollment forms from the Bloomington office. This office advises and maintains academic records for all persons not based on an Indiana University campus.

Credit for Military Service

Depending on the length and type of training received, students may receive up to 6 credit hours based on military service. Additional credit may be awarded for special training programs in the military. This credit can be applied only as elective credit for the labor studies degrees. To apply, students should present their DD-214 form and, if applicable, training completion certificates to the Division of Labor Studies office.

Credit for Self-Acquired Competency

Upon successful completion of 12 credit hours in labor studies, students may apply for up to 15 hours of self-acquired competency (SAC) credit to go toward the Associate of Science degree and up to 30 (including any applied to the associate degree) toward the Bachelor of Science degree. SAC credit can be awarded for learning gained outside the university and may be based on a wide variety of experiences. Labor studies students can apply for SAC credit on the basis of learning derived from their union activities.

Self-acquired competency refers to learning, or competency, that can be documented. SAC credit is not granted simply for "time served." Thus, it is not granted on the basis of the number of terms served as a union officer. Nor is it multiplied by the number of times the same experience has been repeated. A secretary-treasurer who has performed the same functions for four terms is not likely to receive significantly more credit than one who has performed the same functions, and has learned as much, from one or two terms.

SAC credit is of two types: (1) Course-specific credit is granted where the applicant's competency is substantially equivalent to the competency that is expected after completion of an Indiana University course. Credit for the specific course is awarded. (2) General credit is granted for competency that is not the exact equivalent of competency gained from completing a specific IU course but is nevertheless the equivalent of college learning. This is the only form of SAC credit available outside of the Division of Labor Studies.

Tuition for SAC credit is the same as for Independent Study courses.

In general, the following procedures and limitations govern the awarding of credit for self-acquired competency:

- A student must be admitted to the Labor Studies Program, have successfully completed 12 credit hours in Labor Studies, and be in good standing before any credit for self-acquired competency is awarded.
- A maximum of 15 credit hours of self-acquired competency credit may be applied to the Associate of Science in Labor Studies and a maximum of 30 hours of credit to the Bachelor of Science in Labor Studies.

How to Apply

The process of building a SAC portfolio is time-consuming. It begins with the development of a resume and the listing of experiences that may have led to college-level competency. The portfolio is then organized and phrased to demonstrate the connection to specific labor studies courses or to general areas of knowledge in labor studies. Finally, appropriate documentation is added.

Each portfolio is evaluated by two members of the Division of Labor Studies faculty, who also interview the applicant. Supplementary materials and counseling are available from labor studies faculty on campuses offering the program. Students applying for SAC credit may be required to come to an Indiana University campus for an interview as part of the SAC evaluation.

Transfer of Self-Acquired Competency Credit within Indiana University

Self-acquired competency credit awarded by the faculty of one Indiana University campus is recorded and explained on the student's permanent record. Such credit will be honored, therefore, on any other Indiana University campus to which the student may transfer in order to complete the associate or bachelor's degree in labor studies. The student should be aware, however, that such credit will not necessarily be honored by other degree programs of Indiana University or by other institutions.

Academic Policies

Student's Responsibility

It is the responsibility of the student to be aware of all published academic regulations.

Grades

Division of Labor Studies instructors may assign plus and minus grades. Letter grades carry the following grade points:

A and A+	4.0
A—	3.7
B+	3.3
B	3.0
B—	2.7
C+	2.3
C	2.0
C—	1.7
D+	1.3
D	1.0
D—	0.7
F	0.0

Grade Point Average

Grade point averages (GPAs) are computed by multiplying the grade points for the letter grade

received by the number of credit hours for each course, adding these points, then dividing by the total credit hours. The GPA of a student who has earned a C+ and a B, each in 3 credit hour courses, would be computed as follows:

$$(2.3 \times 3) + (3.0 \times 3) = 15.9$$

$$15.9 \div 6 \text{ (credit hours)} = 2.65 \text{ GPA}$$

Incompletes

If a student is not in attendance during the last weeks of a semester, the instructor may report a grade of Incomplete (I)—indicating that the course work completed is satisfactory but that the entire course has not been completed—if the instructor believes that the absence was beyond the student's control; if not, a grade of F is assigned.

Incompletes are given only under rare circumstances. These circumstances do not include being "tied up," "getting behind," etc. The grade of I is normally given only when the student has completed three-fourths of the course work. The grade of I will be removed from the student's record once the required course work has been satisfactorily completed. The student is expected to make up the uncompleted course work by the end of the next regular semester, or earlier if stipulated. Incompletes not removed within the time specified by the instructor of the course automatically change to an F one calendar year after the Incomplete was given.

Pass/Fail Option

Students who are working toward a bachelor's degree and are in good standing (i.e., not on academic probation) may take up to eight *elective* courses on a Pass/Fail basis (no letter grade assigned). A Pass/Fail course may not be used to satisfy any of the area requirements, nor may it be counted as part of the student's course requirements. Pass/Fail courses may, however, be used to meet the 300- to 400-level course requirement.

Decisions to take courses Pass/Fail must be made no later than the seventh week of classes for regular sessions and no later than midway through any summer session. A grade of P is not counted when computing grade point averages. A grade of F is computed. A grade of P *cannot be changed* later to a grade of A, B, C, or D.

Academic Standing and Progress

1. Grades of D+ or lower may apply only as elective credit. Courses in which such a grade is received may not be used to fulfill Division of Labor Studies or major areas of learning course requirements.
2. A student who fails to maintain a minimum grade point average of 2.0 over any successive 12 credit hour sequence is placed on academic probation.
3. If the academic deficiency resulting in probation is not made up in the subsequent 12 credit hours in which the student is enrolled, the student is subject to dismissal from the university.
4. Students admitted on a provisional basis may be dismissed if they fail to achieve a minimum GPA of 2.0 during the first 12 credit hours of course work completed.
5. Students who fail to execute timely withdrawals from classes jeopardize their academic standing and run the risk of receiving failing grades.

Students who do not properly add courses to their schedules risk not receiving credit for course work completed.

6. The completion of 0 to 25 credit hours signifies freshman class standing; 26 to 55 credit hours, sophomore; 56 to 85 credit hours, junior; and 86 or more credit hours, senior class standing.

Academic Probation

Students are automatically placed on academic probation when their cumulative grade point average for a full-time semester or a 12 credit hour unit of work falls below 2.0. Their course work (and that of students who have been admitted on probation) will be evaluated upon completion of an additional 12 credit hours at Indiana University. Students are removed from probationary status if their grade point average of these 12 credit hours increases to at least 2.0 and if their cumulative grade point average increases to at least 2.0. If the cumulative grade point average remains below 2.0, probationary status continues for another 12 credit hour unit of work, during which time the cumulative grade point average must be raised to at least 2.0.

Dismissal

Students are dismissed from the university when they have ceased to make satisfactory progress toward the degree. Students are dismissed whenever their grade point average for a full-time semester or a 12 credit hour unit of course work falls below 1.0 and their cumulative grade point average falls below 2.0. Probationary students are dismissed if their grade point average for the additional 12 credit hours of course work falls below 2.0. Students whose probationary status has been continued for a second 12 credit hour unit of course work and who fail to achieve a cumulative grade point average of at least 2.0 after completing this unit are also dismissed.

Retaking Courses Previously Failed—FX Policy

Undergraduates who have retaken a course previously failed may, upon request, have only the second grade in that course counted in the determination of their grade point average. The student's transcript records both grades; the original grade is marked FX. This option may be invoked for a total of three courses or 10 credits, whichever comes first.

Cheating and Plagiarism

Cheating on examinations or other course work, alteration of records, or illegal use of examinations is considered dishonesty. Anyone who permits or helps others to cheat is as guilty as the persons assisted.

Plagiarism is the presentation of the work of another as one's own. Honesty requires that *ideas or materials taken from another source be fully acknowledged*. The language or ideas taken from another may range from isolated formulas, sentences, or paragraphs to entire articles copied from books or from the writing of other students. The work of others should be clearly identified, generally through the use of quotation marks and footnotes.

A faculty member who suspects cheating or plagiarism initiates the process of determining guilt or innocence. No action is taken before the student has

been informed of the charges and has had an opportunity to reply. This process may result in disciplinary action and dismissal from the university.

For further regulations, refer to the Indiana University *Code of Student Rights, Responsibilities, and Conduct*, which can be obtained from the School of Continuing Studies.

Academic Forgiveness Policy for Former IU Students

Students with academic deficiencies (a cumulative grade point average that has fallen below 2.0 [C]) in course work done at Indiana University may be admitted to the Labor Studies Program on probation. The student must achieve a minimum grade point average of 2.0 for all courses taken at Indiana University before and after admission to the program in order to obtain a degree. Students who have been dismissed from another academic unit of Indiana University may not be admitted to the Labor Studies Program until at least one calendar year has passed from the date of dismissal.

A student prevented from attaining a cumulative 2.0 grade point average because of poor performance in an IU semester that was completed five or more years before enrollment in the Labor Studies Program may ask the Division of Labor Studies to strike the records. All credit earned during this one semester is also removed from the internal grade point average by the Division of Labor Studies under this forgiveness policy. In general, such a request is granted automatically, particularly when the student would fail to graduate because of one poor semester.

A similar request may be made for the forgiveness of a poor semester completed at Indiana University within five years prior to admission to the Labor Studies Program. Approval of such requests is usually dependent, however, on the successful completion of 12 credit hours in the Labor Studies Program. Because all credit earned during the forgiven semester is removed from the grade point average, students are advised to consult with their counselor concerning the advisability of this procedure. If granted, all courses and grades remain on the transcript. Forgiveness is internal to Labor Studies only.

This policy is designed to avoid placing an excessive burden on students who, in the past, have made a poor start at Indiana University. It is not intended to permit students with chronically poor performance in the university to stay in school, nor to raise false hopes for students who are not making progress toward a degree.

Academic Forgiveness Policy for Students Dismissed from Other Institutions

Students who have been dismissed from another postsecondary institution may not be admitted to the Labor Studies Program until at least one calendar year has passed since the date of the dismissal.

University regulations require that the admissions office indicate any deficiencies in grade point average (average grade below 2.0 on a 4.0 scale) at another institution on the credit transfer report. Indiana

University's policy is to calculate a student's grade based only on course work done at Indiana University. These grades must be at least average, or C, quality (2.0 on 4.0 scale) in order to earn a degree. If the cumulative grade point average from another institution is below 2.0, however, the student is admitted on probation.

Graduation

All schools and colleges establish certain academic requirements that must be met before a degree is granted. Advisors, directors, and deans will help a student meet these requirements, but the student is responsible for fulfilling them. At the end of the course of study, the faculty and the Board of Trustees vote on the conferring of the degree. If requirements have not been satisfied, the degree will be withheld pending adequate fulfillment. For this reason, it is important that students become acquainted with all regulations, remain currently informed, and keep track of their own progress.

Degrees are awarded every December, May, and August. Students expecting to graduate must file written notice of intent, citing the degree and expected date of graduation, with the appropriate Division of Labor Studies office at least three months prior to graduation.

Graduation with Honors

Students who complete a minimum of 30 credit hours for the Associate of Science in Labor Studies or 60 credit hours for the Bachelor of Science in Labor Studies at Indiana University graduate with honors if they attain the appropriate grade point averages: 3.90, highest distinction; 3.75, high distinction; 3.50, distinction. No more than 10 percent of a graduating class may receive distinction.

Confidentiality of Student Records

Indiana University, in compliance with the General Education Provisions Act, Section 438, titled Family Educational Rights and Privacy Act, provides that all student records are confidential and available only to the student and to the student's parents, if the student is under 21 and dependent as defined by IRS standards. Students may review their records upon request and may ask for deletions or corrections of the record in a hearing process described in detail in the *Code of Student Rights, Responsibilities, and Conduct*. References, recommendations, and other similar documents may carry a voluntary waiver relinquishing the student's right to review this specific material. The student may also release the record to others by signing a written release available in the offices that maintain records. Further details regarding the provisions of the Privacy Act and a list of offices where student records are kept may be found in the *Code of Student Rights, Responsibilities, and Conduct*.

Withdrawal from Courses

Since periods and deadlines for withdrawal from courses may vary by campus and/or school, students should check with the current campus *Schedule of Classes* to verify deadlines and procedures. Correspondence students should follow the deadlines and procedures in the current edition of *Independent Study University Courses*.

Union Education Program

The Division of Labor Studies offers an extensive noncredit program, the Union Education Program (UEP).

UEP open enrollment courses and conferences are available to workers in communities throughout the state; they are offered in local union halls, on the various campuses of Indiana University, and on the campuses of other educational institutions.

Classes usually meet weekly for 4 to 10 weeks. They are open to participants from both large and small unions, craft and industrial unions, and public- and private-sector unions. Typical topics for these classes are labor law, collective bargaining, steward training, communications, OSHA, and arbitration.

Other programs meet the educational needs of individual unions. Local or international unions may contract with the Division of Labor Studies to conduct these programs. Enrollments are limited to members of the contracting union.

There are no special entrance requirements, tests, or grades. Participants who complete a class or conference are awarded a Certificate of Achievement from the Division of Labor Studies. Upon completion of 150 classroom hours in the UEP, the participant is awarded a Certificate of Recognition. There is a nominal charge for UEP classes and conferences.

Fees and Fee Refund Policies and Schedule

Independent Study and On-Campus Courses

Credit hour and special fees are approved by action of the Trustees of Indiana University and are subject to change. Please consult the appropriate school or campus bulletin or Schedule of Classes for the current fee information and the fee refund schedule. Bulletins and appropriate class schedules are available at Division of Labor Studies offices.

Self-Acquired Competency

The fee per credit hour recorded for self-acquired competency is the fee charged per credit hour by the Independent Study Program, School of Continuing Studies, for university correspondence courses.

Fee Reductions and Financial Aid

Scholarships and Financial Aid

Students can obtain information about loans and part-time employment through the financial aid office and through their school or department.

Employment

The financial aid office on each campus lists openings for part-time jobs in various offices and organizations of the university.

Fee Courtesy

Full-time employees of Indiana University and their spouses and children may receive a fee courtesy when enrolling in Independent Study courses and on-campus courses. Additional information is available from the campus personnel office.

VA Benefits

Veterans enrolled solely in Independent Study courses may be eligible for fee reimbursement by the Veterans Administration upon completion of courses.

Veterans in an on-campus degree program may be eligible for an education allowance if at least 51 percent of their enrollment credit hours are in on-campus courses. Further information and assistance are available from Adaptive Education Services in Cavanaugh Hall or from the veterans representatives in the Office of the Registrar in Cavanaugh Hall at IUPUI.

DANTES and SOC

Indiana University is one of a number of universities participating in the SOC (Servicemen's Opportunity College) program and the DANTES (Defense Activity for Non-Traditional Education Support) program, which provide educational support for the voluntary education programs of all military departments. Members of the armed forces should consult their education officers or their nearest education center concerning individual enrollments. Interested persons may also consult the DANTES independent study catalogs for additional information about courses.

The SOC program permits the student to enroll at the university while still in service.

A representative on each campus has been named by the university. Military service personnel can obtain information from the base education officer.

Labor Studies Administrative Officers

CHARLES DAVIS, Ph.D., *Director of the Division of Labor Studies*

STEVEN ASHBY, Ph.D., *Southeast Region Coordinator*

MARK A. CROUCH, M.A., *Northeast Region Coordinator*

LYNN DUGGAN, Ph.D., *Southwest Region Coordinator*

LAURIE A. GRAHAM, Ph.D., *Central Region Coordinator*

THANDABANTU IVERSON, M.A., *Northwest Region Coordinator*

JANE KISER, Ph.D., *Northwest Region Coordinator*

NAJJA N. MODIBO, Ph.D., *Marion County Coordinator*

RUTH A. NEEDLEMAN, Ph.D., *Northwest Region Coordinator*

MARK ROBBINS, J.D., *Marion County Coordinator*

JEROLD J. PAAR, M.A., *Teaching Associate*

JEFFREY VINCENT, M.S., *Research Associate*

IUPUI Labor Studies Faculty

Charles Davis, Ph.D. (*American University, 1986*)
Professor of Labor Studies

Najja Modibo, Ph.D. (*University of Toronto, 1995*),
Assistant Professor of Labor Studies

Mark Robbins, J.D. (*University of Maine, 1986*)
Assistant Professor of Labor Studies

IUPUI Labor Studies Professional Staff

Jerold J. Paar, M.A. (*University of Notre Dame, 1985*), *Teaching Associate*

Labor Studies Offices

Bloomington

Note: Send requests for external labor studies to this office.

Division of Labor Studies—IUB
Poplars 628
Bloomington, IN 47405
(812) 855-9082
Fax: (812) 855-1563

Fort Wayne

Division of Labor Studies—IPFW
Kettler Hall G-28
2101 Coliseum Boulevard, East
Fort Wayne, IN 46805
(219) 481-6831
Fax: (219) 481-5784

Gary

Division of Labor Studies—IUN
Lindenwood Hall 126
3400 Broadway Drive
Gary, IN 46408
(219) 980-6825
Fax: (219) 980-6834

Indianapolis

Note: Send requests for IU East (Richmond area) to this office.

Division of Labor Studies—IUPUI
Union Building 503
620 Union Drive
Indianapolis, IN 46202
(317) 274-3471
Fax: (317) 278-2280
Toll free: 1-800-822-4743

Kokomo

Division of Labor Studies—IUK
2300 South Washington Street
P.O. Box 9003
Kokomo, IN 46902
(765) 455-9403
Fax: (317) 455-9504

Richmond

Requests for IU East go to the Indianapolis office.

South Bend

Division of Labor Studies—IUSB
Riverside 123
1700 Mishawaka Avenue
P.O. Box 7111
South Bend, IN 46634
(219) 237-4469
Fax: (219) 237-4599

Contents

570	Department of Military Science
570	Philosophy
570	Objectives
570	Faculty
570	Administration
570	Admission Requirements
570	Policy
570	Standards
570	Curriculum
570	Basic Course
571	Advanced Course
571	Professional Military Education Requirements
571	Off-Campus Training
571	Academic Policy
571	Partnership Schools
572	Support Services
572	Advanced Placement
572	Leader's Training Course
572	Veterans
572	Junior ROTC (JROTC)
572	Simultaneous Membership Program (SMP)
573	Financial Aid
573	Army ROTC Scholarships
573	Fee Remission
573	Books/Supplies
573	Subsistence Allowance
573	Simultaneous Membership Program (SMP)
573	Institutional Scholarships
573	Student Employment
573	Employment Opportunities
573	Suggested Schedule of Courses
573	Military Science Courses
574	Professional Military Education Elective Courses

Department of Military Science

Philosophy

The theory of offering the Army Reserve Officers' Training Corps (ROTC) to students on college campuses is perhaps best explained in the words of Lee S. Dreyfus, former chancellor of the University of Wisconsin—Stevens Point: "ROTC is not the presence of the military in the university, but rather the presence of the university in the military."

Through ROTC the Army gains officers with diverse educational backgrounds and contemporary ideas.

ROTC enhances a student's education by providing unique leadership and management experience found in few college courses. It helps develop self-discipline, physical stamina, and poise. Students develop qualities that lead to success in any worthwhile career. They earn commissions in the U.S. Army while earning their college degrees. They can serve as officers in the Army National Guard or the U.S. Army Reserve or request active duty.

Roy Hudson, former president of Hampton Institute, sums it up as follows: "Our youth need to be guided and inspired by people and organizations dedicated to principles encouraging and permitting the full development of the whole person, intellectually and personally. In my estimation, ROTC is such an organization."

Objectives

Army ROTC has the following objectives:

1. Offer competent military instruction to interested students;
2. Identify eligible students for Army commissions and to ensure they meet all requirements for those commissions; and
3. Provide college-trained officers for the U.S. Army, the Army National Guard, and the U.S. Army Reserve.

Faculty

Active-duty Army personnel are assigned to the Department of Military Science with the consent of the ROTC Faculty Advisory Committee at Indiana University—Purdue University Indianapolis (IUPUI) and the dean of faculties as confirmed by the Trustees of Indiana University. Such personnel spend an average of three years as instructors in the department. Each faculty member has a blend of practical military experience and solid educational background. The composition of the faculty is as follows:

Army Grade	Faculty Position
Lieutenant Colonel	Professor of Military Science and Department Chair
Major	Senior Assistant Professor of Military Science
Captain	Assistant Professor of Military Science
Master Sergeant	Senior Tactical Instructor
Sergeant First Class	Principal Drill Instructor

Administration

The faculty is supported by a full-time staff that has clerical, administrative, and logistical responsibility. The staff includes the military property custodian (a university employee) and the military personnel clerk (a Department of the Army civilian).

Admission Requirements

Policy

The ROTC Basic Course (see "Curriculum, Basic Course" in this bulletin) is open to all IUPUI, IUPU Columbus, Butler University, Franklin College, Marian College, University of Indianapolis, and Ivy Tech—Community College of Indiana students without any prerequisites or allied requirements. Students who are not U.S. citizens must check with the Department of Military Science administrative office prior to course attendance to ensure that they have the proper permission from their home country embassy for military training.

The ROTC Advanced Course is open to all students who have completed the Basic Course or who qualify for advanced placement (see "Advanced Placement" in this bulletin). Entry requirements are specified below.

Standards

Applicants for the Advanced Course must have completed the Basic Course (courses G101, G102, G201, and G202) or be eligible for advanced placement (see "Advanced Placement" in this bulletin) prior to acceptance.

Applicants also must meet the following entrance requirements.

Academic Performance

Applicants must have a minimum grade point average of 2.0 (C) throughout the first two years of college work.

Medical Evaluation

Applicants must pass a standard Army medical evaluation, provided free of charge.

Physical Fitness Test

Applicants must obtain a passing grade on the Army Physical Fitness Test (APFT) consisting of push-ups, sit-ups, and a two-mile run.

Age

Entrance into the commissioning program is predicated on students not having reached age 30 by June 30 of the year they receive their officer's commission. Scholarship recipients must be less than 31 years of age at the date of commissioning. Extensions of up to three years may be granted for veterans of active duty. Waivers may be granted up to age 32 for non-scholarship students.

Dependents

To be eligible, an individual must not have more than three dependents (spouse and two children).

Citizenship

Applicants for the Advanced Course must be U.S. citizens by birth or naturalization.

Veterans

Prior service personnel entering the program must have a qualifying reenlistment code.

Student Status

Advanced Course students must be full-time university students; that is, they must enroll for 12 hours of undergraduate credit or 9 hours of graduate credit each semester.

Marginal Students

In accordance with Army regulations, students who do not meet the academic or physical fitness requirements of the Advanced Course may be disenrolled from the program.

Personal History

All applicants must meet loyalty and integrity requirements established by Congress for military officers.

Interview

The professor of military science will personally interview all applicants and is the final authority on a candidate's eligibility for the program.

Emphasis

Students entering the Advanced Course must matriculate in a curriculum that will lead to a four-year bachelor's degree or a two-year graduate degree. Any curriculum offered by IUPUI or other institution served by this department is acceptable.

Curriculum

The following are the requirements to be commissioned as a second lieutenant in the U.S. Army:

1. Completion of a bachelor's degree.
2. Completion of 18 credit hours of military science.
3. Completion of the professional military education component of the ROTC program.
4. Successful completion of Advanced Camp.

Basic Course (G101, G102, G120, G121, G201, and G202)

The Basic Course is usually taken in the freshman and sophomore years. All necessary textbooks and materials are furnished without cost to the student, and all tuition and fees are paid for through university fee remission. No prior military experience is required and no commitment is incurred during this time. Students may withdraw at any time through the end of the second year.

Individual courses cover the areas of management; national defense; military history; leadership

development; military tactics, discipline, and customs; individual weapons; crew-served weapons; land navigation; and U.S. military tactics. Various social and professional activities are available in conjunction with the military science program.

100-level courses are 1 credit hour, and 200-level courses are 2 credit hours, for a total of 6 credit hours in the Basic Course. In essence, this course is intended to introduce the student to the Army and ROTC. Theoretical concepts are covered in the classroom, and practical military skills are learned in a field-training environment.

Students are encouraged to attend optional weekend activities, weekly leadership lab (two hours), and physical fitness training (M, W, F; 6:45–7:45 a.m.).

Army Physical Fitness (E130 and E230)

Any student enrolled in any military science course may attend these 2 credit hour Army Physical Fitness classes free of charge; however, no credit will be given in such cases. Students must pay for these courses if they are taken for credit. These courses are offered through the School of Physical Education.

Advanced Course (G301, G302, G401, and G402)

After completing the Basic Course or its equivalent (see “Advanced Placement” in this bulletin) and 54 credit hours of course work with a grade point average of at least 2.0 (C), students who have demonstrated officer potential and who meet Army physical standards are eligible to enroll in the Advanced Course.

The Advanced Course is normally taken in the final two years of college. Instruction includes further leadership development, organization and management, tactics, and administration.

A paid five-week Advanced Camp is held during the summer between the junior and senior years. This camp permits cadets to put into practice the principles and theories they have learned in the classroom. It also exposes them to Army life in a tactical or field environment.

All cadets in the Advanced Course receive uniforms, necessary military science textbooks, and payment for attending Advanced Camp, and an allowance of up to \$3,000 each school year.

Before entering the Advanced Course, a student must sign a contract that certifies an understanding of the service obligation. This obligation may be fulfilled in various ways, depending on the individual's personal preference and the needs of the Army. Scholarship graduates serve four years on active duty (if selected by Cadet Command) and four in the Army Guard or Army Reserve, unless they receive a Guaranteed Reserve Forces Duty scholarship. If that scholarship is received, the graduate serves entirely with the Guard or Reserve. Nonscholarship graduates may serve three years on active duty (if selected by Cadet Command) and the remaining five years in the Guard or Reserve.

If the nonscholarship graduate selects reserve force duty, the eight-year obligation is spent in the Guard or Reserve. There, officers assume duties for three years with a troop unit, and the last five years of the eight-year obligation requires no participation (readiness status only).

The Advanced Course comprises four 3 credit hour courses (totaling 12 credit hours) and the summer Advanced Camp. The 300-level courses stress the military skills that will be needed to successfully complete the Advanced Camp. The 400-level courses concentrate on those skills needed by an officer about to go on active duty. In addition, a student battalion is organized in which students are given various command and staff positions based on an order of merit established by their prior performance in the program.

Advanced Course students are required to attend weekly leadership labs (two hours), and some weekend field-training exercises.

Professional Military Education Requirements

This component of the ROTC program is designed to provide the cadet with the type of academic foundation necessary to support continued intellectual growth. As an integral part of their undergraduate education, prospective officers are required to take at least one course in each of the following three fields of study: computer science, communication skills, and American military history. It is recommended that cadets take courses in national security policy, math reasoning, human behavior, and management. Authorized courses are listed in the course description section of this bulletin.

Off-Campus Training

One of the major advantages of the ROTC program is the opportunity for cadets to attend actual Army training courses during the summer vacation months. Attendance at one or more of these courses has multiple benefits for the ROTC student. The cadet learns firsthand how the Army trains. Cadets are exposed to a unique learning experience. They live in an actual Army environment and gain an appreciation for the people with whom they will be working during their period of service. Students are selected for this training on a merit basis (academic and physical) from volunteers wishing to take advantage of this opportunity. The following list describes the five types of off-campus training programs. Cadets are not paid to attend these training courses; however, travel, lodging, and meals are provided.

Airborne School

This course is taught at Fort Benning, Georgia, and lasts three weeks. Students completing this course are fully qualified paratroopers. The first week (ground week) consists of rigorous physical training and instruction designed to prepare the student to make a parachute jump and land safely. The second week (tower week) perfects individual skills and stresses

team effort. Jump skills are taught through the use of the swing landing trainer, the suspended harness, and the 250-foot free-fall tower. The final week (jump week) consists of five parachute jumps from U.S. military aircraft.

Air Assault School

This two-week course is taught at several locations throughout the United States. Key areas of training include obstacle course, rappelling, rigging, and helicopter sling loading, and a 12-mile march. Students are evaluated at the end of each training phase.

Mountain Warfare School

This two-week course emphasizes military mountaineering. It is taught at the Vermont National Guard Mountain Warfare School (MWS) in Jericho, Vermont.

Northern Warfare School

This course is taught at the Northern Warfare Training Center, Fort Greeley, Alaska, and lasts three weeks. The course is intended to familiarize junior leaders with military operations in northern areas. Emphasis is placed on movement in mountainous terrain, on glaciers, and on inland waterways.

Cadet Troop Leader Training

Cadet Troop Leader Training (CTLT) gives cadets who have completed Advanced Camp firsthand experience in the duties of an Army officer by providing three weeks of duty in an active Army unit or initial entry training unit (basic training), where cadets serve as platoon leaders.

If a cadet is assigned to a unit on parachute status and the cadet is already airborne qualified, the cadet may participate in unit parachute jumps with approval from the commanding officer.

Academic Policy

No student with a history of marginal academic performance (below a 2.0 [C] cumulative GPA) will be admitted to the ROTC Advanced Course.

Students who have been admitted to the Advanced Course but fail to maintain good academic standing will be disenrolled from ROTC.

No student will be commissioned as an officer in the U.S. Army if not in good academic standing at the time of commissioning, even if the student has finished all military science academic requirements. Students must receive the bachelor's degree to be commissioned.

The chairperson of the military science department admits all Advanced Course students to the program, continuously monitors their progress, disenrolls marginal performers, and certifies each candidate for a commission.

Partnership Schools

The Department of Military Science at IUPUI offers participation in Army ROTC at six other Indianapolis-area institutions of higher education. A student on these six campuses may cross-enroll in the IUPUI

ROTC program and earn an Army commission. Partnership students are eligible for the same benefits as IUPUI students and must meet the same admission requirements. The partnership institutions are:

Butler University

Students register and pay fees for ROTC courses just as they would for any Butler University course. Students must commute to the IUPUI campus for ROTC classes not offered at Butler University. Students may fulfill Butler University's physical education requirement through ROTC. Military science grades are applied to the student's overall GPA.

IUPU Columbus

Students register and pay fees for ROTC courses just as they would for any IUPU Columbus course. Students must commute to IUPUI for all ROTC classes.

Franklin College

Students enroll in military science courses through the Consortium for Urban Education, Indianapolis, and the Franklin College registrar's office. Students must commute to the IUPUI campus for all ROTC classes.

Marian College

Students enroll in military science courses through the Consortium for Urban Education, Indianapolis, and the Marian College registrar's office. Students must commute to the IUPUI campus for all ROTC classes.

University of Indianapolis

Students enroll in military science courses through the Consortium for Urban Education, Indianapolis, and the University of Indianapolis registrar's office. Students must commute to the IUPUI campus for all ROTC classes.

Ivy Tech–Community College of Indiana

Students register and pay fees for ROTC courses just as they would for any Ivy Tech–CCI course. Students may or may not have to commute to the IUPUI campus for ROTC classes. Students may fulfill an elective requirement through ROTC. Military science grades are applied to the student's overall GPA.

Support Services

Library

The Department of Military Science maintains its own library facility with books, journals, and training aids particular to the curriculum.

Awards

Students who merit special recognition receive it through the military science department's awards program. This program includes the following three types of awards:

Functional Awards

Made on merit, these awards provide the student with additional educational experience. For example, the Marshall Foundation Award provides for a student's

attendance at a three-day seminar in the Washington, D.C., area where national security concerns are discussed by the highest-ranking members of the Army and civilian members of the Department of the Army.

Recognition Awards

The Army and many civilian organizations such as the American Legion, Veterans of Foreign Wars, and Daughters of the American Revolution provide awards to deserving students, recognizing accomplishments in academic and leadership efforts.

University Awards

IUPUI, in honor of Dr. and Mrs. Otis R. Bowen, presents a trophy every year to the most outstanding ROTC student.

Social

The Department of Military Science provides ample opportunity for its students and faculty to meet in a social environment as well as in the classroom. Social activities include a picnic each semester, and cadet-sponsored parties. Awards and commissioning ceremonies are followed with social hours. The primary social event of the year is a formal military ball.

Intramural Program

It is the policy of the Department of Military Science to enter teams or individuals, as appropriate, in all university intramurals. In essence, the department acts as a vehicle for those students wishing to participate in athletics.

Career Counseling

The Department of Military Science maintains a vigorous counseling program. Student progress and performance level are constantly monitored. Students are periodically counseled on their status in the program, and those in academic trouble are offered assistance. The purpose of this program is to ensure that students are commissioned in the proper career field upon successful completion of the ROTC program.

Advanced Placement

(Army ROTC Two-Year Program)

Although Army ROTC is normally a four-year course of instruction, a program is available to allow students to complete ROTC in just two years. Students must have two years of course work remaining to complete degree requirements upon entering the Advanced Placement program. Under the two-year program, students who attended a junior or community college, students at four-year institutions who have not taken ROTC during their first two years of undergraduate study, and students entering a two-year postgraduate course of study may enroll in the ROTC program. In addition, students who have past military experience may participate in this program. Students who are awarded advanced placement may go directly into the ROTC Advanced Course. In order to qualify for Advanced Course placement, the applicant must fulfill one of the following requirements:

Leader's Training Course

This five-week camp is held at Fort Knox, Kentucky, each summer and is repeated several times between June and early August. Successful completion of this camp allows direct entrance into the ROTC Advanced Course. Students' travel expenses are paid, and lodging and most meals are provided. In addition, participating students earn about \$600. ROTC scholarships are offered to more than 50 percent of students who complete the course and meet Advanced Course eligibility requirements. Training covers rappelling, map reading/land navigation, rifle marksmanship, basic leadership techniques, physical training/marches, individual and unit tactics, communications, first aid, drills/parades/ceremonies, military courtesy/traditions, and water survival.

During this training, students learn some fundamental things about the Army—weapons, combat tactics, drill, and ceremonies. Students also learn some basic things about themselves—their physical endurance, leadership capabilities, and ability to think and perform under pressure. Students finish the summer with some other basics—discipline, pride, and confidence—that will be important to them in all their future endeavors. Applications for Leader's Training Course are taken each year from November through May.

Veterans

Veterans of prior military service with any branch of the armed services are authorized advanced placement if they meet program admission requirements.

Junior ROTC (JROTC)

Students who have completed at least two years of Junior ROTC in high school may receive advanced placement of one year in the ROTC program, and students with three years of Junior ROTC may receive advanced placement of two years in the ROTC program if they meet Advanced Course admission requirements.

Simultaneous Membership Program (SMP)

This program is for those who desire to serve in an Army National Guard or Army Reserve unit while earning a commission through ROTC. Scholarship students are not eligible for the SMP. If a guard or reserve member accepts an ROTC scholarship, he or she must be released and discharged from the guard or reserve unit.

Students wishing to participate in the SMP must qualify for enlistment in a guard or reserve unit. If a vacancy is available, students who qualify for enlistment join an Army National Guard or Army Reserve unit and become officer trainees. Students who are already members of such a unit may apply for the SMP either through their commanding officer or through the professor of military science at the college they attend.

As an officer trainee in the SMP, students are exempt from the ROTC Basic Course and may enroll directly in the Army ROTC Advanced Course at host colleges or at nearby institutions that permit cross-enrollment.

There are also opportunities for tuition assistance with the SMP units.

Financial Aid

Army ROTC Scholarships

Army ROTC scholarships are offered for two, three, and four years. The two- and three-year scholarships are awarded competitively to students who are enrolled in college. Recipients of these scholarships may be cross-enrolled at Butler University, Marian College, Franklin College, or the University of Indianapolis.

Applications for two- and three-year scholarships are available from the professor of military science and must be submitted no later than March 1 for the following fall semester. Recipients will be notified prior to the end of the spring semester.

The host ROTC unit awards—based upon quotas allocated by Cadet Command—the three- and four-year Advanced Designee scholarships. These scholarships are awarded to U.S. citizens who will be entering college as freshmen. Scholarship winners must enroll at the institution (or partnership school) that awarded them the scholarship. Completed applications must be received by July 15 for early consideration, and by November 15 for final consideration. For more information on scholarship availability and selection procedures, contact the Department of Military Science.

Three-year Advanced Designee scholarships are awarded like four-year scholarships, except that the benefits commence with the student's sophomore year, if the student continues to meet eligibility requirements.

The value of the tuition/fee portion of the scholarship depends on the amount charged by the institution attended. Students may receive up to \$16,000 per year for tuition/fees; however, students may also receive lesser scholarships. In addition to tuition and fees, scholarship recipients receive \$300 per semester for books (\$600 per year), and a subsistence allowance of at least \$200 per month while school is in session (\$2,000 per year).

Fee Remission

All freshmen and sophomores taking the Basic Course do not have to pay tuition for G101, G102, G201, and G202, since these courses are eligible for university fee remission. Note: The student must pay for G120, G121, E130, and E230 to receive academic credit.

Books/Supplies

All books, supplies, and materials needed in the Basic and Advanced Courses are supplied to the student by the Department of Military Science free of charge.

Subsistence Allowance

Each Advanced Course student and three- and four-year scholarship recipient receives a tax-free allowance of at least \$200 per month up to 10 months per year. Additionally, students are paid approximately \$600 for each summer training camp they attend.

Simultaneous Membership Program (SMP)

SMP students draw pay from two sources. First, as advanced ROTC students, they receive \$300 a month for each month of the major academic term and approximately \$600 for attending their two weeks of summer training/annual training.

Meanwhile, as officer trainees in an Army National Guard or Army Reserve unit, students attend monthly drills and annual training and receive pay equivalent to a sergeant's (E-5) or the highest grade attained if they have prior military rank.

The ROTC stipend and Army National Guard or Army Reserve pay, including annual training, provides students with approximately \$7,000 per year, depending on the nature of their SMP participation.

Institutional Scholarships

IUPUI Army ROTC awards three semester-based scholarships. The ROTC cadre interviews each applicant. The cadet battalion commander is present for each interview as an observer only. Students must have a minimum grade point average of 2.5 to be eligible for these scholarships.

Student Employment

The department manages a limited amount of student employment. Students may apply for part-time employment. Student employees are paid on an hourly basis.

Employment Opportunities

The Department of Military Science is unique in that it publishes the salary of its active-duty graduates. The current total pay and allowances for a beginning lieutenant start at approximately \$32,000 annually and end with a senior general officer at \$137,000 (salaries based on 2000 pay scale). Salaries are adjusted for cost-of-living each year.

Suggested Schedule of Courses

The following matrix shows the progression through the military science curriculum. It is a suggested approach; however, ROTC intends to be as flexible as possible in allowing a student to complete course requirements.

Freshman Year

1st Semester	G101 Military Science Written communications course
2nd Semester	G102 Military Science Computer literacy course

Sophomore Year

1st Semester	G201 Military Science Military history course
2nd Semester	G202 Military Science

Junior Year

1st Semester	G301 Military Science
2nd Semester	G302 Military Science
Summer	Attend ROTC Advanced Camp Selected students attend Airborne, Air Assault, or Cadet Troop Leader Training

Senior Year

1st Semester	G401 Military Science
2nd Semester	G402 Military Science
May	Commissioned as a Second Lieutenant in the U.S. Army

Military Science Courses

Basic Course

The Basic Course comprises first- and second-year ROTC courses—G101, G102, G201, and G202—which are designed for beginning students who want to qualify for entry into the Advanced Course and for those students who would like to explore the area of military science without any service obligations. A number of popular or challenging extracurricular activities are associated with these courses. Students who do not complete the Basic Course can qualify for entry into the Advanced Course by completing the Leader's Training Course during the summer after the sophomore year.

G101 Introduction to ROTC (1 cr.) Make your first peer group at college one that is committed to performing well and enjoying the experience. Increase self-confidence through team study and activities in basic drill, physical fitness, rappelling, leadership, first aid, making presentations, and basic marksmanship. Learn fundamental concepts of leadership in both classroom and outdoor laboratory environments. Students taking this course may participate in G120 Leadership Laboratory, which meets for one two-hour session each week; one one-hour session of E130/E230 Basic Course Physical Fitness each week; and one weekend exercise during the semester. Participation in these activities is optional but is highly encouraged.

G102 Introduction to Leadership (1 cr.) Learn and apply principles of effective leadership. Reinforce self-confidence through participation in physically and mentally challenging exercises with upper-division ROTC students. Develop communication skills to improve individual performance and group interaction. Relate organizational ethical values to the effectiveness of a leader. Students taking this course may participate in G121 Leadership Laboratory, which

meets for one two-hour session each week; one one-hour session of E130/E230 Basic Course Physical Fitness each week; and one weekend exercise during the semester. Participation in these activities is optional but is highly encouraged.

G201 Self/Team Development (2 cr.) Learn and apply ethics-based leadership skills that develop individual abilities and contribute to the building of effective teams. Learn to make effective oral presentations, write concisely, plan events, and coordinate group efforts. Develop skills in advanced first aid, land navigation, and basic military tactics. Learn fundamentals of ROTC's Leadership Assessment Program. Students taking this course may participate in G120 Leadership Laboratory, which meets for one two-hour session each week; two one-hour sessions of E130/E230 Basic Course Physical Fitness each week; and one weekend exercise during the semester. Participation in these activities is optional but is highly encouraged.

G202 Individual/Team Military Tactics (2 cr.) Learn individual and team aspects of military tactics in small unit operations. Course covers radio communication, making safety assessments, movement techniques, planning for team safety and security, and pre-execution checks methods. Engage in practical exercises with upper-division ROTC students, and learn techniques for training others as an aspect of continued leadership development. Students taking this course may participate in G121 Leadership Laboratory, which meets for one two-hour session each week; two one-hour sessions of E130/E230 Basic Course Physical Fitness each week; and one weekend exercise during the semester. Participation in these activities is optional but is highly encouraged.

E130 Basic Course Physical Fitness (1 cr.) Open to students enrolled in Basic Course classes (G101, G102, G201, and G202). Students in any Basic Course class may attend sessions for no credit without formally enrolling; however, if students desire credit for this course, they must formally enroll and pay for the course. Participate in and learn to lead a physical fitness program through assuming different leadership roles at different levels of the Basic Course. Course emphasizes development of an individual fitness program and the role of exercise and fitness in one's life.

G120 and G121 Principles of Leadership and Program Planning (1-6 cr.) Enrollment in these classes must be arranged through the Department Chair. Cadets that demonstrate a desire to become an Army officer may enroll in these courses. These courses teach advance principles of training, physical fitness, marksmanship, survival and program planning.

Leader's Training Course A rigorous five-week summer leadership training camp, similar to Army basic training, conducted at an Army post. Participating students are paid about \$600, and the Army defrays the cost of travel, lodging, and most meals. Camp Challenge is open only to students who have not taken all four Basic Course classes—G101, G102, G201, and G202—and who pass a physical examination (paid for by ROTC). Completion of Camp

Challenge qualifies a student for entry into the ROTC Advanced Course. The camp is offered several times during the summer, and the Army limits space in each camp. Candidates may apply for a space at any time during the academic year. The camp is graded on a pass/fail basis.

Advanced Course

The Advanced Course comprises upper-level ROTC courses—G301, G302, G401, and G402. The Advanced Course is open only to students who have completed the Basic Course or earned placement credit for it. The Advanced Course is designed to qualify students for commissioning as officers in the U. S. Army. Students must complete all courses in the Advanced Course and attend Advanced Camp, a five-week camp usually completed in the summer between the junior and senior years. The advanced ROTC courses must be taken in sequence unless the professor of military science approves an exception. Students enrolled in the Advanced Course receive \$300-\$400 per month during the academic year.

G301 Leading Small Organizations I (3 cr.) Series of practical opportunities to lead small groups in situations of increasing complexity and to receive encouragement and assessments of leadership performance. Students taking this course must attend Advanced Course Leadership Laboratory, which meets for one two-hour session each week and one weekend exercise during the semester. One or two more weekend exercises may be offered for optional participation.

G302 Leading Small Organizations II (3 cr.) Continues methodology of G301. Learn to analyze tasks, prepare written or oral guidance for team members to accomplish tasks, delegate tasks, and supervise accomplishment of tasks. Develop ability to plan for and adapt to the unexpected in organizations under stress, examine and apply lessons from leadership case studies, and examine the importance of ethical decision making in setting a positive climate that enhances team performance. Students taking this course must attend Advanced Course Leadership Lab, which meets for one two-hour session each week and one weekend exercise during the semester. Two more weekend exercises will be offered for optional participation.

ROTC Advanced Camp A five-week camp conducted at an Army post. The camp is open only to (and required of) students who have completed G301 and G302. Participating students are paid about \$600, and the Army defrays the cost of travel, lodging, and most meals. The Advanced Camp environment is highly structured and demanding, stressing leadership of small units under varying and challenging conditions. Individual leadership and basic skills performance are evaluated throughout the camp. The Advanced Camp leadership and skills evaluations weigh heavily in the subsequent selection process that determines the type of commission a student receives upon graduation.

ROTC Nurse Summer Training Program (Nursing students who enter this training program may, with the approval of their academic advisors, enroll in

K490 and receive up to 4 hours of credit.) Program consists of three weeks serving as a nurse in a military medical treatment facility. Open only to nursing students who have completed G303 and G304. Participating students are paid about \$300, and the Army defrays the cost of travel, lodging, and most meals. The clinical environment is demanding, and it stresses leadership and nursing under varying and challenging conditions. Individual leadership and basic skills performance are evaluated throughout.

G401 Leadership Challenges and Goal Setting (3 cr.) Learn to plan, conduct, and evaluate activities of the ROTC cadet organization; articulate goals and enact plans to attain them; and assess organizational cohesion and develop strategies to improve it. Develop leadership and resource management skills. Learn and apply various Army policies and programs. Students taking this course must attend Advanced Course Leadership Laboratory, which meets for one two-hour session each week and one weekend exercise during the semester. One or two more weekend exercises may be offered for optional participation.

G402 Transition to Lieutenant (3 cr.) Continues methodology of G401. Learn to identify and resolve ethical dilemmas, refine counseling and motivating techniques, and examine aspects of tradition and law as they relate to leading as an officer in the Army. Prepare for a future as a successful Army lieutenant. Students taking this course must attend Advanced Course Leadership Laboratory, which meets for one two-hour session each week and one weekend exercise during the semester. One or two more weekend exercises may be offered for optional participation.

E230 Advanced Course Physical Fitness (2 cr.) Students may attend sessions for no credit without formally enrolling; however, if students desire credit for this course, they must formally enroll and pay for the course. Participate in and learn to plan and lead physical fitness programs through assuming various leadership roles at different levels of the Advanced Course. Develop the physical fitness required of an officer in the Army. Emphasis is on the development of an individual fitness program and the role of exercise and fitness in one's life.

Professional Military Education Elective Courses

The following is a list of the courses that may be used to fulfill the professional military education requirement at the schools served by this detachment. Students wishing to substitute courses or receive credit for courses transferred from other institutions must petition the Department of Military Science in writing. To be considered, this written request must contain the course name/number, area in which credit is sought, catalog/bulletin description of the course, name of the institution where it was taken, and grade received.

Indiana University–Purdue University Indianapolis

Communications

COMM C223 Business and Professional Communication (3 cr.)
 COMM R110 Fundamentals of Speech (3 cr.)
 ENG W131 Elementary Composition I (3 cr.)
 ENG W132 Elementary Composition II (3 cr.)
 ENG W231 Professional Writing Skills (3 cr.)
 ENG W331 Business and Administrative Writing (3 cr.)
 TCM 220 Technical Report Writing (3 cr.)
 TCM 320 Written Communication in Science and Industry (3 cr.)
 TCM 340 Correspondence in Business and Industry (3 cr.)

Computer Literacy

CSCI 100 Principles of Computer Literacy (3 cr.)

Military History

HIST H220 American Military History (3 cr.)
 Any American history course at the 200 level or above

Butler University

Communications

EN 100 Principles of Writing (3 cr.)
 EN 101 Composition and Critical Thinking (3 cr.)
 EN 201 Advanced Composition (3 cr.)
 SH 101 Public Speaking (3 cr.)

Computer Literacy

CL 101 Basic Computer Literacy (3 cr.)

Military History

HS 383 American Military History (3 cr.)
 Any American history course at the 200 level or above

Marian College

Communications

ENG 101 English Composition (3 cr.)
 ENG 102 Research Paper (3 cr.)
 ENG 302 Advanced Writing (3 cr.)
 SPC 101 Fundamentals of Speech (3 cr.)

Computer Literacy

CST 110 Introduction to Computer Systems and Their Applications (3 cr.)

Military History

HIS 347 American Foreign Relations (3 cr.)
 HIS 216–217 U.S. History (3-3 cr.)
 HIS 340 Recent U.S. History (3 cr.)

Franklin College

Communications

GE 101 Freshman Reading and Composition I (3 cr.)
 GE 102 Freshman Reading and Composition II (3 cr.)
 GE 201 Public Speaking (3 cr.)

Computer Literacy

CMP 130 Computer Literacy (3 cr.)

Military History

HIS 220 U.S. History to 1877 (3 cr.)
 HIS 221 U.S. History since 1877 (3 cr.)

University of Indianapolis

Communications

ENGL 101 English Composition (3 cr.)
 ENGL 220 Advanced Composition: Expository Writing (3 cr.)
 COMM 100 Public Speaking (3 cr.)

Computer Literacy

COMP 150 Microcomputer Applications (3 cr.)

Military History

HIST 464 U.S. Diplomatic History (3 cr.)
 HIST 465 The United States and the World since 1945 (3 cr.)
 HIST 307 U.S. History to 1877 (3 cr.)
 HIST 308 U.S. History since 1877 (3 cr.)

Ivy Tech State College

Communications

HEW 101 English Composition I (3 cr.)
 HEW 102 English Composition II (3 cr.)
 HEW 108 Technical Writing (3 cr.)
 HSS 143 Speech (3 cr.)

Computer Literacy

CIS 101 Introduction to Microcomputers (3 cr.)



Rules Determining Resident and Nonresident Student Status for Indiana University Fee Purposes

These Rules establish the policy under which students shall be classified as residents or nonresidents upon all campuses of Indiana University for University fee purposes. Nonresident students shall pay a nonresident fee in addition to fees paid by a resident student.

These Rules shall take effect February 1, 1974; provided, that no person properly classified as a resident student before February 1, 1974, shall be adversely affected by this Rule, if he or she attended the university before that date and while he or she remains continuously enrolled in the university.

1. "Residence" as the term, or any of its variations (e.g., "resided"), as used in the context of these Rules, means the place where an individual has his or her permanent home, at which he or she remains when not called elsewhere for labor, studies, or other special or temporary purposes, and to which he or she returns in seasons of repose. It is the place a person has voluntarily fixed as a permanent habitation for himself or herself with an intent to remain in such place for an indefinite period. A person at any one time has but one residence, and a residence cannot be lost until another is gained.
 - (a) A person entering the state from another state or country does not at that time acquire residence for the purpose of these Rules, but except as provided in Rule 2(c)¹, such person must be a resident for 12 months in order to qualify as a resident student for fee purposes.
 - (b) Physical presence in Indiana *for the predominant purpose* of attending a college, university, or other institution of higher education, shall not be counted in determining the 12-month period of residence; nor shall absence from Indiana for such purpose deprive a person of resident student status.
2. A person shall be classified as a "resident student" if he or she has continuously resided in Indiana for at least 12 consecutive months immediately preceding the first scheduled day of classes of the semester or other session in which the individual registers in the University, subject to the exception in (c)¹ below.
 - (a) The residence of an unemancipated person under 21 years of age follows that of the parents or of a legal guardian who has actual custody of such person or administers the property of such person. In the case of divorce or separation, if either parent meets the residence requirements, such person will be considered a resident.²
 - (b) If such person comes from another state or country for the predominant purpose of attending the University, he or she shall not be
 - admitted to resident student status upon the basis of the residence of a guardian in fact, except upon appeal to the Standing Committee on Residence in each case.¹
 - (c) Such person may be classified as a resident student without meeting the 12-month residence requirement within Indiana if his or her presence in Indiana results from the establishment by his or her parents of their residence within the state and if he or she proves that the move was predominantly for reasons other than to enable such person to become entitled to the status of "resident student."¹
 - (d) When it shall appear that the parents of a person properly classified as a "resident student" under subparagraph (c) above have removed their residence from Indiana, such person shall then be reclassified to the status of nonresident; provided, that no such reclassification shall be effective until the beginning of a semester next following such removal.
 - (e) A person once properly classified as a resident student shall be deemed to remain a resident student so long as remaining continuously enrolled in the university until such person's degree shall have been earned, subject to the provisions of subparagraph (d) above.
3. The foreign citizenship of a person shall not be a factor in determining resident student status if such person has legal capacity to remain permanently in the United States.
4. A person classified as a nonresident student may show that he or she is exempt from paying the nonresident fee by clear and convincing evidence that he or she has been a resident (see Rule 1 above) of Indiana for the 12 months prior to the first scheduled day of classes of the semester in which his or her fee status is to be changed. Such a student will be allowed to present his or her evidence only after the expiration of 12 months from the residence qualifying date, i.e., the date upon which the student commenced the 12-month period for residence. The following factors will be considered relevant in evaluating a requested change in a student's nonresident status and in evaluating whether his or her physical presence in Indiana is for the predominant purpose of attending a college, university, or other institution of higher education. The existence of one or more of these factors will not require a finding of resident student status, nor shall the non-existence of one or more require a finding of nonresident student status. All factors will be considered in combination, and ordinarily resident student status will not result from the doing of acts which are required or routinely done by sojourners in the state or which are merely auxiliary to the fulfillment of educational purposes.
 - (a) The residence of a student's parents or guardians.
 - (b) The situs of the source of the student's income.
 - (c) To whom a student pays his or her taxes, including property taxes.
 - (d) The state in which a student's automobile is registered.
 - (e) The state issuing the student's driver's license.
 - (f) Where the student is registered to vote.
 - (g) The marriage of the student to a resident of Indiana.
 - (h) Ownership of property in Indiana and outside of Indiana.
 - (i) The residence claimed by the student on loan applications, federal income tax returns, and other documents.
 - (j) The place of the student's summer employment, attendance at summer school, or vacation.
 - (k) The student's future plans including committed place of future employment or future studies.
 - (l) Admission to a licensed profession in Indiana.
 - (m) Membership in civic, community, and other organizations in Indiana or elsewhere.
 - (n) All present and intended future connections or contacts outside of Indiana.
 - (o) The facts and documents pertaining to the person's past and existing status as a student.
 - (p) Parents' tax returns and other information, particularly when emancipation is claimed.
5. The fact that a person pays taxes and votes in the state does not in itself establish residence, but will be considered as hereinbefore set forth.
6. The registrar or the person fulfilling those duties on each campus shall classify each student as resident or nonresident and may require proof of all relevant facts. The burden of proof is upon the student making a claim to a resident student status.
7. A Standing Committee on Residence shall be appointed by the president of the university and shall include two students from among such as may be nominated by the student body presidents of one or more of the campuses of the university. If fewer than four are nominated, the president may appoint from among students not nominated.
8. A student who is not satisfied by the determination of the registrar has the right to lodge a written appeal with the Standing Committee on Residence within 30 days of receipt of written notice of the registrar's determination, which committee shall review the appeal in a fair manner and shall afford to the student a personal hearing upon written request. A student may be represented by counsel at such hearing. The committee shall report its determination to the student in writing. If no appeal is taken within the time provided herein, the decision of the registrar shall be final and binding.

¹Rules 2(b) and 2(c) apply only to unemancipated persons under 21 years of age.

²Invocation of the provision in Rule 2(a) that applies to cases of divorce or separation requires appropriate legal documentation.

9. The Standing Committee on Residence is authorized to classify a student as a resident student, though not meeting the specific requirements herein set forth, if such student's situation presents unusual circumstances and the individual classification is within the general scope of these Rules. The decision of the committee shall be final and shall be deemed equivalent to a decision of the Trustees of Indiana University.
10. A student or prospective student who shall knowingly provide false information or shall refuse to provide or shall conceal information for the purpose of improperly achieving resident student status shall be subject to the full range of penalties, including expulsion, provided for by the university, as well as to such other punishment which may be provided for by law.
11. A student who does not pay additional monies which may be due because of his or her classification as a nonresident student within 30 days after demand, shall thereupon be indefinitely suspended.
12. A student or prospective student who fails to request resident student status within a particular semester or session and to pursue a timely appeal (see rule 8) to the Standing Committee on Residence shall be deemed to have waived any alleged overpayment of fees for that semester or session.
13. If any provision of these rules or the application thereof to any person or circumstance is held invalid, the invalidity does not affect other provisions or applications of these rules which can be given effect without the invalid provision or application, and to this end the provisions of these rules are severable.

Index

- Absences, 15
- Academic Advising and Counseling, 12-13
 - See INSITE for self-advising information
- Academic Bankruptcy
 - See Forgiveness Policy
- Academic Misconduct
 - See Code of Student Rights, Responsibilities, and Conduct
- Academic Policies
 - Forgiveness policy, 20
 - Grades, 18-19
 - Grade replacement, 20
 - Probation and dismissal, 19-20
- Accounting and Information Systems, Department of
 - See Kelley School of Business
- Accreditation, 4
- Activities, Co-curricular, 32-33
- Adapted Physical Education
 - See School of Physical Education
- Adaptive Educational Services (AES), 32
 - Formerly Office of Disabled Student Services
- Adding Classes, 14
- Admission, Graduate and Professional, 27-29
 - See also individual schools and programs
- Admission Requirements, International Students, 8
- Admission Requirements, Undergraduate, 5-8
 - See also individual schools and programs
- Adult Education, Master of Science in
 - See School of Continuing Studies
- Adult Special Students, 6-7
- Advanced Placement (AP) Program, 23
- Advising, Academic, 12-13
- Aeronautics, 25
 - See Air Force ROTC in Military Science
- Affirmative Action/Equal Opportunity Policy, 22
- Afro-American Studies
 - See School of Liberal Arts
- Allied Health Sciences, School of, 41-88
- Alumni Associations, 36
- Alumni Organization for Students (SOAR), 36
- American Humanics
 - See School of Public and Environmental Affairs
- American Sign Language/English Interpreting
 - See School of Liberal Arts
- American Studies
 - See School of Liberal Arts
- Anatomy and Physiology, Undergraduate Level
 - See School of Science
- Anatomy and Physiology, Graduate School
 - See School of Medicine
- Anthropology,
 - See School of Liberal Arts
- Application Fees for Admission, 5
- Applied Statistics
 - See School of Science
- Aquatic Concentration
 - See School of Physical Education
- Arabic
 - See School of Liberal Arts
- Architectural Technology
 - See School of Engineering and Technology
- Art Education
 - See Herron School of Art
- Art History
 - See Herron School of Art
- Articulation Agreements, 7
- Associate Degrees, 5
 - See individual schools
- Astronomy
 - See School of Science
- Athletic Training
 - See School of Physical Education
- Athletics
 - See School of Physical Education
- Athletics, Intercollegiate, 36
- Athletics, Intracollegiate
 - See School of Physical Education
- Attendance Policies, 15
 - See Absences
- Auditing classes, 20
- Authorization for Enrolling in Classes, 14
- Awards
 - See individual schools and programs
 - Chancellor's Scholars, 36
 - Student Activities Honors Reception, 37
- Biology
 - See School of Science
- Biomedical Electronics Technology
 - See School of Engineering and Technology
- Biomedical Engineering
 - See School of Engineering and Technology
- Black Student Union (BSU), 33
- Board of Trustees, 4
 - Indiana University, 4
 - Purdue University, 4
- Bookmarks Program, 37
- Bookstores, 34-35
- Business, Kelley School of, 111-136
- Business and Professional Writing
 - See School of Liberal Arts
- Business Economics and Public Policy
 - See Kelley School of Business
- Business Foundations, Certificate in
 - See Kelley School of Business
- Business Law
 - See Kelley School of Business
- Calendar, Academic, 592
- Campus Housing, 30
- Campus Map
 - See inside back cover
- Capstone Courses
 - See individual schools and majors
- Career Fairs, 36
- Career Information and Employment Center, 31
- Career Planning, 31, 36
- Center for American Studies
 - See School of Liberal Arts
- Center for Earth and Environmental Science
 - See School of Science
- Center for Economic Education
 - See School of Liberal Arts
- Center for Service and Learning, 35
- Center for the Study of Religion and American Culture
 - See School of Liberal Arts
- Center on Philanthropy
 - See School of Liberal Arts
- Ceramics
 - See Herron School of Art
- Certificates, 5, 17
 - See individual schools
- Chancellor's Scholars, 36
- Change of Major, 17
- Cheating, 37
- Chemistry
 - See School of Science
- Child Care, 31
- Choral Ensembles
 - See School of Music
- Civil Engineering Technology
 - See School of Engineering and Technology
- Civility, 16
- Class Standing, 19
- Classical Studies
 - See School of Liberal Arts
- CLEP Credit, 23
- Clinical Laboratory Science/Medical Technology
 - See School of Allied Health Sciences
- Clinical Rehabilitation Psychology
 - See School of Science
- Clubs, 33
- Coaching
 - See School of Physical Education
- Code of Student Rights, Responsibilities, and Conduct*, 37-38
- Columbus, Indiana University–Purdue University, 4, 577-584
- Commencement Ceremonies, 37
- Communication Studies
 - See School of Liberal Arts
- Communication Systems
 - See School of Engineering and Technology
- Community Learning Network (CLN), 5
- Comparative Literature
 - See School of Liberal Arts
- Complaint Procedures, 21
 - See *Code of Student Rights, Responsibilities, and Conduct*
- Computer and Information Science
 - See School of Science
- Computer Art and Graphics
 - See Herron School of Art
- Computer Engineering
 - See School of Engineering and Technology
- Computer Graphics Technology
 - See School of Engineering and Technology
- Computer Integrated Manufacturing Technology
 - See School of Engineering and Technology
- Computer Technology
 - See School of Engineering and Technology
- Computers on Campus, 34
- Concentration or Major Requirements
 - See individual schools and programs
- Confidentiality of Student Records, 21
- Consortium for Urban Education (CUE), 23
- Construction Technology
 - See School of Engineering and Technology
- Consumer and Family Science Transfer Program
 - See School of Physical Education
- Continuing Non-Degree Students
 - See Graduate Non-Degree students (GND)
- Continuing Studies, School of, 137-146
- Control Systems
 - See School of Engineering and Technology
- Convention and Meeting Planning
 - See School of Physical Education
- Cooperative Education (Coop) Program
 - See individual schools and programs
- Correspondence Courses
 - See School of Continuing Studies

- Correspondence Courses, Limited Hours Counting toward Degrees
 - See* individual schools and programs
- Counseling
 - Academic, 12-13
 - Personal, 31
- Counseling and Psychological Services (CAPS), 31
- Counseling/Counselor Education
 - See* School of Education
- Course Fees, 14-15
- Course Level, 13
- Courses
 - Adding, 14
 - Incompletes, 18
 - Repeating courses, 9
 - Withdrawals, 21
- Courses, Descriptions
 - See* individual schools and programs
- Creative Writing
 - See* School of Liberal Arts
- Credit, Special, 23
- Credit by Examination, 23
- Criminal Justice
 - See* School of Public and Environmental Affairs
- Cultural Diversity
 - See* School of Liberal Arts
- Cumulative Grade Point Average (GPA), 19
- Cytotechnology
 - See* School of Allied Health Sciences
- Dance
 - See* School of Physical Education
- Day Care
 - See* Child Care
- Deadlines
 - Application for admission, 5, 30
 - Application for financial aid, 9
 - Application for graduation, 18
 - Application for pass/fail, 18-19
 - Withdrawing from courses, 20-21
- Dean of Students, 32
- Dean's Lists, 24
 - See* individual schools
- Debate
 - See* School of Liberal Arts
- Decision and Information Systems
 - See* Kelley School of Business
- Declaring a Major, 16-17
- Deferred Grade, Grade of R, 19
- Degree Requirements
 - See* schools and individual programs
- Degree Requirements
 - For Graduation with Distinction, 24-25
 - For Honors Degrees, 23-24
 - For Second Undergraduate Degree, 17
- Degrees Offered
 - See* individual schools
 - Associate Degrees, 5
 - Bachelor's Degrees, 5
 - Master's Degrees, 5
 - Professional Degrees, 5
 - Doctoral Degrees, 5
- Dental Assisting Certificate
 - See* School of Dentistry
- Dental Hygiene
 - See* School of Dentistry
- Dental Illustration
 - See* School of Dentistry
- Dentistry, School of, 147-152
- Departmental Honors, 24
- Dietetics
 - See* School of Allied Health Sciences
- Digital/Microprocessor Systems
 - See* School of Engineering and Technology
- Disabilities, Students with, 32
- Disciplinary Procedures and Sanctions
 - Academic misconduct, 37-38
 - Personal misconduct, 38
- Dismissal, 19
- Dissertations
 - See* individual programs
- Distance Learning, 14
- Distinction, Graduation with, 24-25
- Doctoral Degrees, 5, 27-30
 - See* also individual programs
- Double Majors, 17
- Driver Education Endorsement
 - See* School of Physical Education
- Dropping Classes, 9, 14
- Drug-Free Environment, 38
- Dual Degrees, 17
- Early Childhood Education
 - See* School of Education
- Economics
 - See* School of Liberal Arts
- Education, School of, 153-170
- Electives, 13, also
 - See* individual schools
- Electrical and Computer Engineering
 - See* School of Engineering and Technology
- Electrical and Computer Engineering Technology
 - See* School of Engineering and Technology
- Electronics Manufacturing
 - See* School of Engineering and Technology
- Elementary Education
 - See* School of Education
- Emergency Medical Services (paramedic)
 - See* School of Allied Health Sciences
- Emergency Services Administration Program
 - See* School of Public and Environmental Affairs
- Employment Enrichment Programs
 - See* School of Engineering and Technology
- Employment, Student, 31
 - Part-time employment, 31
 - Work-study, 31
- Endorsements in Elementary and/or Secondary Education
 - See* School of Education;
 - See* also individual schools
- Engineering and Technology, School of, 171-226
- English
 - See* School of Liberal Arts
- English as a Second Language (ESL),
 - Placement testing, 12
- English Language Proficiency Test, 12, 27, 28
- Enrollment Center, 5
- Entrance Requirements, 5-8, 27-30
 - Graduate students, 27-30
 - International students, 8
 - Non-degree graduate students, 30
 - Transfer students, 7-8
 - Undergraduate students, 5-8
 - Visiting students, 8
- Entrepreneurship Concentration
 - See* Kelley School of Business
- Environmental Courses
 - See* Schools of Liberal Arts, Public and Environmental Affairs, and Science
- Environmental Policy Program
 - See* School of Public and Environmental Affairs
- Environmental Science and Management
 - See* School of Public and Environmental Affairs
- Equal Opportunity Policy, 22
- Escort Service, 38
- Exercise Science
 - See* School of Physical Education
- Exploratory Students, 13
- Faculty
 - See* individual schools
- Fees, 14-15
 - Activities, 14-15
 - Application, 5
 - Audit, 20
 - Graduate tuition, 14-15
 - Housing, 30
 - Orientation, 12
 - Parking, 14-15, 30
 - Professional program tuition, 14-15
 - Recreation, 14-15
 - Technology, 14-15
 - Undergraduate tuition, 14-15
- Film Studies
 - See* School of Liberal Arts
- Final Examinations, Schedule of and Policies
 - Regarding
 - See* *Schedule of Classes*, printed separately
- Finance
 - See* School of Business
- Financial Aid, 8-10
 - Application for Federal Student Aid (FAFSA), 9-10
 - Federal and state work-study, 31
- Financial Aid, Office of, 9-10
- Fine Arts
 - See* Herron School of Art
- Fine Print* (Student Literary Magazine), 33
- Folklore
 - See* School of Liberal Arts
- Food and Nutrition
 - See* School of Physical Education
- Food Service Specialist Certificate
 - See* School of Physical Education
- Foreign Languages and Cultures
 - See* School of Liberal Arts
 - Credit for native speakers, 12
 - Placement tests, 12
 - Special credit options, 12
- Forgiveness Policy, 20
- Fraternities and Sororities, 33
- French
 - See* School of Liberal Arts
- Fresh Start
 - See* School of Allied Health Sciences
- Full-time Graduate Student, Definition of, 19
- Full-time Undergraduate Student, Definition of, 19
- Furniture Design
 - See* Herron School of Art
- General Education Requirements, 13
- General Studies
 - See* School of Continuing Studies
- Genesis* (Student Literary Magazine), 33
- Geography
 - See* School of Liberal Arts
- Geology
 - See* School of Science

- German
 - See* School of Liberal Arts
- Grade Appeals, 19, 21
- Grade Point Average (GPA), 19
- Grade Replacement Policy (Formerly FX), 20
- Grades, Required in Majors and Minors
 - See* individual schools and programs
- Grades, 18-19
- Graduate Office, IUPUI, 29
- Graduate Degree Programs, 27-30
 - See* also IU Graduate School, individual schools offering graduate programs;
 - See* also the School of Engineering and Technology;
 - See* also School of Science
- Graduate Programs, 227-236
- Graduate Record Examination (GRE), 27, 28, 29, 30
- Graduate School, Indiana University, 29-30
 - See* Graduate Programs section
- Graduate School, Purdue University, 27-29
 - See* Graduate Programs section
- Graduate School Admission Policies, 27-30
 - See* also individual programs
- Graduate Student Organization (GSO), 33
- Graduate Students, Financial Aid, 9-10, 29
- Graduate Students, International, 8
- Graduate Students, Non-degree, 28, 29, 30
- Graduation, 37
 - Applying for graduation, 18
 - Graduation with distinction, 24-25
- Grievance Procedures, Student, 38

- Health Administration
 - See* School of Public and Environmental Affairs
- Health and Safety
 - See* School of Physical Education
- Health Information Administration
 - See* School of Allied Health Sciences
- Health Insurance, Student, 31
- Health Sciences Education
 - See* School of Allied Health Sciences
- Health Services Administration
 - See* School of Public and Environmental Affairs
- Herron School of Art, 89-110
- History
 - See* School of Liberal Arts
- Histotechnology
 - See* School of Allied Health Sciences
- Honoraries, 25
- Honors Program, IUPUI, 23-24
- Honors Programs, School/Departments, 24-25
 - See* individual schools and programs
- Hotel, Restaurant, and Tourism Management
 - See* School of Physical Education
- Housing, Campus, 30
- Human Resource Management Certificate
 - See* School of Engineering and Technology

- Incompletes, Grade of I, 18
- Independent Study Program
 - See* Correspondence Courses
- Indiana Campus Compact (ICC), 35-36
- Indiana College Network, 14
- Indiana University, 4
- Individualized Major Program
 - See* School of Liberal Arts
- Industrial Co-op Programs, Master's
 - See* School of Science
- Industrial Engineering
 - See* School of Engineering and Technology
- Industrial Engineering Technology
 - See* School of Engineering and Technology
- Industrial/Organizational Psychology
 - See* School of Science
- Informatics, School of, 237-254
- INSITE (Access to students' academic and financial records), 13
- Instrumental Ensembles
 - See* School of Music
- Insurance Concentration
 - See* Kelley School of Business
- Intellectual property, electronic, 22
- Intercampus Transfers, 7
- Intercollegiate Athletics, 36
- Interdisciplinary Engineering
 - See* School of Engineering and Technology
- International Affairs, Office of, 32
- International Business
 - See* Kelley School of Business
- International House, 30
- International Undergraduate Student Admission, 8
- International Graduate Student Admission, 27-30
- Internet and Online Courses, 14
- Internships, 25
 - See* also individual programs
- Interpersonal and Organizational Communication
 - See* School of Liberal Arts
- Intramural and Recreational Sports
 - See* School of Physical Education
- IUPUI Columbus, 4, 577-584
- IUPUI Mission Statement, 4
- Interior Design
 - See* School of Engineering and Technology

- Japanese
 - See* School of Liberal Arts
- Job Placement, 31
- Journalism, School of, 255-272

- L.P.N. to A.S.N. Mobility Option
 - See* School of Nursing
- Labor Studies, Division of, 561-568
- Languages, Foreign
 - See* School of Liberal Arts
- Latin
 - See* School of Liberal Arts
- Latino Student Organization, 33
- Law, School of, Indianapolis, 273-276
- Learning Center, 15
- Learning Communities, 13
- Legal Studies
 - See* School of Liberal Arts; *See* also School of Public and Environmental Affairs
- Letter Grades, 18
- Liberal Arts, School of, 277-352
- Libraries, 33-34
 - Herron School of Art, 33-34
 - Dentistry, School of, 33-34
 - Law School (Indianapolis), 33-34
 - Medicine, School of (Ruth Lilly), 33-34
 - University Library, 33-34
- Library and Information Science, School of, 353-366
- Linguistics
 - See* School of Liberal Arts

- Majors or Concentrations, 13, 16-17
 - See* individual schools and programs
- Change of Major, 17
- Double Majors, 17

- Management
 - See* Kelley School of Business
- Management Concentration
 - See* School of Public and Environmental Affairs
- Manufacturing Systems Certificate
 - See* School of Engineering and Technology
- Manufacturing Technology
 - See* School of Engineering and Technology
- Marketing
 - See* Kelley School of Business
- Master's Degrees
 - See* individual schools and Graduate Programs
- Materials Engineering
 - See* School of Engineering and Technology
- Mathematical Sciences
 - See* School of Science
- Mechanical Drafting—Design Technology
 - See* School of Engineering and Technology
- Mechanical Engineering
 - See* School of Engineering and Technology
- Mechanical Engineering Technology
 - See* School of Engineering and Technology
- Media Studies
 - See* School of Liberal Arts
- Medical Humanities and Health Studies
 - See* School of Liberal Arts
- Medical Imaging Technology
 - See* School of Allied Health Sciences
- Medical Sociology
 - See* School of Liberal Arts
- Medical Technology
 - See* School of Allied Health Sciences
- Medicine, School of, 367-370
- Mentoring, 15
- Mid-Career Option
 - See* School of Public And Environmental Affairs
- Military Course Work and Service, Credit for, 23
- Military Science (ROTC), 25, 569-576
- Minority Engineering Advancement Program (MEAP)
 - See* School of Engineering and Technology
- Minors, 17
 - See* schools and programs
- Mission Statement, IUPUI, 4
- Mobility Options
 - See* School of Nursing
- Moving Company, 37
- Museum Studies
 - See* School of Liberal Arts
- Museums and Galleries, 35
- Music and Computers
 - See* School of Music
- Music Courses
 - See* School of Music
- Music, School of, 371-376

- National Art Museum of Sports, 35
- New Media
 - See* School of Informatics
- Noncredit Courses, 5
- Nondegree Students, 30
- Nondiscrimination Policy, 22
- Non-Profit Organizations
 - See* School of Liberal Arts
- Nonresident Students, Policy on, 585-586
- Nuclear Medicine Technology
 - See* School of Allied Health Sciences
- Nursing, School of, 377-408
- Nutrition and Dietetics
 - See* School of Allied Health Sciences

- Occupational Therapy
See School of Allied Health Sciences
- Ombudsperson, 32
- OneCard (Student Identification and Debit Card), 33
- Operations Management
See Kelley School of Business
- Optometry, School of, 409-412
- Organizational Communication
See School of Liberal Arts
- Organizational Leadership and Supervision
See School of Engineering and Technology
- Orientation, New Student, 12
- Overseas Study
See Study Abroad
- Painting
See Herron School of Art
- Paralegal Studies
See School of Liberal Arts (Credit Program)
- Paramedic Science
See School of Allied Health Sciences
- Parking and Transportation, 30
 Parking fees, 30
 Parking tickets, 30
 Shuttle service, 30
- Pass, Grade of P, 18-19
- Passport (transfer program from Ivy Tech), 7
- Personal Counseling, 31
- Petitions
 For grade changes, 19, 21
 For readmission following dismissal, 20
- Philanthropic Studies
See School of Liberal Arts
- Philosophy
See School of Liberal Arts
- Photography
See Herron School of Art
- Photojournalism
See School of Journalism
- Physical Education, School of, 413-432
- Physical Therapy
See School of Allied Health Sciences
- Physics
See School of Science
- Placement Tests, 12
 Accommodations needed, 12
 Chemistry examination, 12
 English as a second language, 12
 Foreign language examinations, 12
 Mathematics examination, 12
 Reading examination, 12
 Writing proficiency examination, 12
See also Special Credit Examinations
- Plagiarism (Cheating), 37-38
- Planning
See School of Public and Environmental Affairs
- Plans of Study
See individual schools and programs for templates or sequencing information
- Police and Safety, 38
 Crime statistics, 38
- Police Cadet Program, 39
- Political Science
See School of Liberal Arts
- Pre-college Classes
See Herron School of Art
See School of Education (Young Scholars)
See School of Engineering (MEAP)
See Honors Program (SPAN)
- Pre-Dental Program of Study, 26
- Pre-Law Program of Study, 26-27
- Pre-Medicine Program of Study, 26
- Pre-Optometry Program of Study, 26
- Pre-Pharmacy Program of Study, 26
- Pre-Physical Therapy Program
See School of Allied Health Sciences
- Prerequisites to Admission into Degree Programs
See individual schools and programs
- Prerequisites for courses, 13
 Check course descriptions listed under department or program
See *Schedule of Classes*, printed separately
- Pre-Veterinary Program of Study, 26
- Printmaking
See Herron School of Art
- Principles of Undergraduate Learning, 15
- Probation, Academic, 17, 19
- Probation, Disciplinary, 37-38
- Professional Advanced Degrees
See appropriate sections in this bulletin
See also separate professional school bulletins
- Proficiency Examinations, 23
- Psychological Services
See Counseling and Psychological Services (CAPS)
- Psychology
See School of Science
- Public Affairs
See School of Public and Environmental Affairs
- Public and Environmental Affairs, School of, 433-472
- Public Financial Management
See School of Public and Environmental Affairs
- Public Health
See School of Medicine
- Public History
See School of Public and Environmental Affairs
- Public Information, 21-22
- Public Opinion Surveying
See School of Liberal Arts
- Public Policy
See School of Public and Environmental Affairs
- Public Relations Certificate
See School of Journalism
- Purdue University, 4, 17, 27-29
- Purdue University Graduate School, 27-29
See Graduate Program section
- Qualifying Examinations, 27, 28, 29
- Quality Control Certificate
See School of Engineering and Technology
- R.N. to B.S.N. Mobility Option
See School of Nursing
- R.N. to Master's Degree Mobility Option
See School of Nursing
- Radiation Therapy
See School of Allied Health Sciences
- Radiography
See School of Allied Health Sciences
- Readmission Following Dismissal, 20
- Real Estate
See Kelley School of Business
- Records, Confidentiality of Student, 21-22
- Recreational Facilities, 33
- Refunds, 21
- Registrar, Office of the, 13
- Registration, 13-15
- Rehabilitation Psychology, Graduate Programs in
See School of Science
- Release of Student Information in University Records, 21-22
- Religious Organizations and Activities, 33
- Religious Studies
See School of Liberal Arts
- Repeating Classes, 21
See also Grade Replacement
- Requirements, Degree and Program
See individual programs
- Residency Requirements
 For tuition, 585-586
 For degrees
See individual programs
- Respiratory Therapy
See School of Allied Health Sciences
- Restaurant, Hotel, Institutional, and Tourism Management
See School of Physical Education
- Rights and Responsibilities, Student, 17-18, 37-38
- ROTC, 25
See Military Science
- Safety, 38
- Sagamore* (Student Newspaper), 33, 36
- Satisfactory, Grade of S, 19
- Satisfactory Progress
 For Financial Aid, 9
- Scholarships, 10-12
- School Administration
See School of Education
- Science, School of, 473-536
- Sculpture
See Herron School of Art
- Second Undergraduate Degree, 17
- Secondary Education
See School of Education
- Secondary Education Teacher's Certification
See School of Education and degree programs offering certification
- Self-Acquired Competencies, 23
- Service Learning Classes, 25, 35
- Social Work, School of, 537-552
- Sociology
See School of Liberal Arts
- SPAN
See Honors Program
- Spanish
See School of Liberal Arts
- SPEA
See School of Public and Environmental Affairs
- Special Credit Examinations, 23
See individual schools and programs
- Special Education—Severe Disabilities
See School of Education
- Speech Communication
See School of Liberal Arts
- Sports, Intramural, 33
- Sports, NCAA, 36
- Statistics Courses
See individual schools and programs
- Student Activity Fee, 14-15
- Student Government, Graduate, 33
- Student Government, Undergraduate, 32
- Student Grievance Procedures, 37-38
- Student Health Services, 31
- Student Identification Card (OneCard), 33

- Student Life and Diversity Programs, Office of, 32
- Student Organizations and Clubs, 33
- Student Records, 21
- Students' Rights and Responsibilities, 17-18, 37-38
- Student Teaching
 - See* School of Education
- Student Technology Fees, 14-15
- Study Abroad, 25-26
- Supervision
 - See* School of Engineering and Technology
- Teacher Certification, 26
 - See* School of Education and programs offering certification
- Technical Communications
 - See* School of Engineering and Technology
- Technical Drafting Certificate
 - See* School of Engineering and Technology
- Technical Graphics
 - See* School of Engineering and Technology
- Technology Fee, 14-15
- Testing Center, 12
- Therapeutic Outcomes Research
 - See* School of Allied Health Sciences
- Thesis Requirement, 28-29
- TOEFL
 - See* English Language Proficiency Test
- Tourism, Conventions, and Event Management
 - See* School of Physical Education
- Transfer Credits, 7-8
- Transfer Program from Ivy Tech (Passport), 7
- Transfer Students, 7-8
- Transferring between Indiana University Campuses, 7
- Travel and Tourism Specialist Certificate
 - See* School of Physical Education
- Tuition
 - See* Fees
- Tutoring, 15
- Undecided students, 13
- Undergraduate Admission Policies
 - See* Admission, Undergraduate
- Undergraduate Research Opportunities Program (UROP), 11, 25
- Undergraduate Student Assembly (USA), 32
- United States Army (ROTC)
 - See* Military Science, Program of
- University College, 4, 15, 553-560
 - Academic Advising, 12-13
 - Honoraries, 25
 - Partnership for Academic Excellence, 15
 - Probation, dismissal, and readmission policy, 17-18
 - See also* University College section
- University Information Technology Services, 34
- Urban Affairs Program
 - See* School of Public and Environmental Affairs
- Urban Studies
 - See* School of Liberal Arts
- Veterans Benefits, 32
- Visiting Students, 6, 8
- Visual Communication
 - See* Herron School of Art
- Volunteerism, 16, 25
- Waitlisting, 14
- Web-based Classes, 14
- Weekend College, 14
- Withdrawal from Classes, 9, 14
- Women's Studies
 - See* School of Liberal Arts
- Woodworking
 - See* Herron School of Art
- Work-Study Opportunities, 31
- Writing Centers, 27
- Writing Placement Examination, 12
 - See also* Special Credit for English W131, 23
- Young Scholars Program
 - See* School of Education
- Zachary's Law (Indiana Sex Offender Registry), 5, 22
- Zoology
 - See* School of Science

Campus Calendars for 2002-07

The following material provides the official dates for numerous critical campus dates such as when classes start and end, final weeks, numerous items related to

registration and financial aid, and holidays. For information about years beyond 2007, see registrar.iupui.edu/accal.html.

The campus also provides numerous ways to find out what social, athletic, and intellectual activities are occurring. The dates of campus events such as the schedules of athletic or social events, lectures,

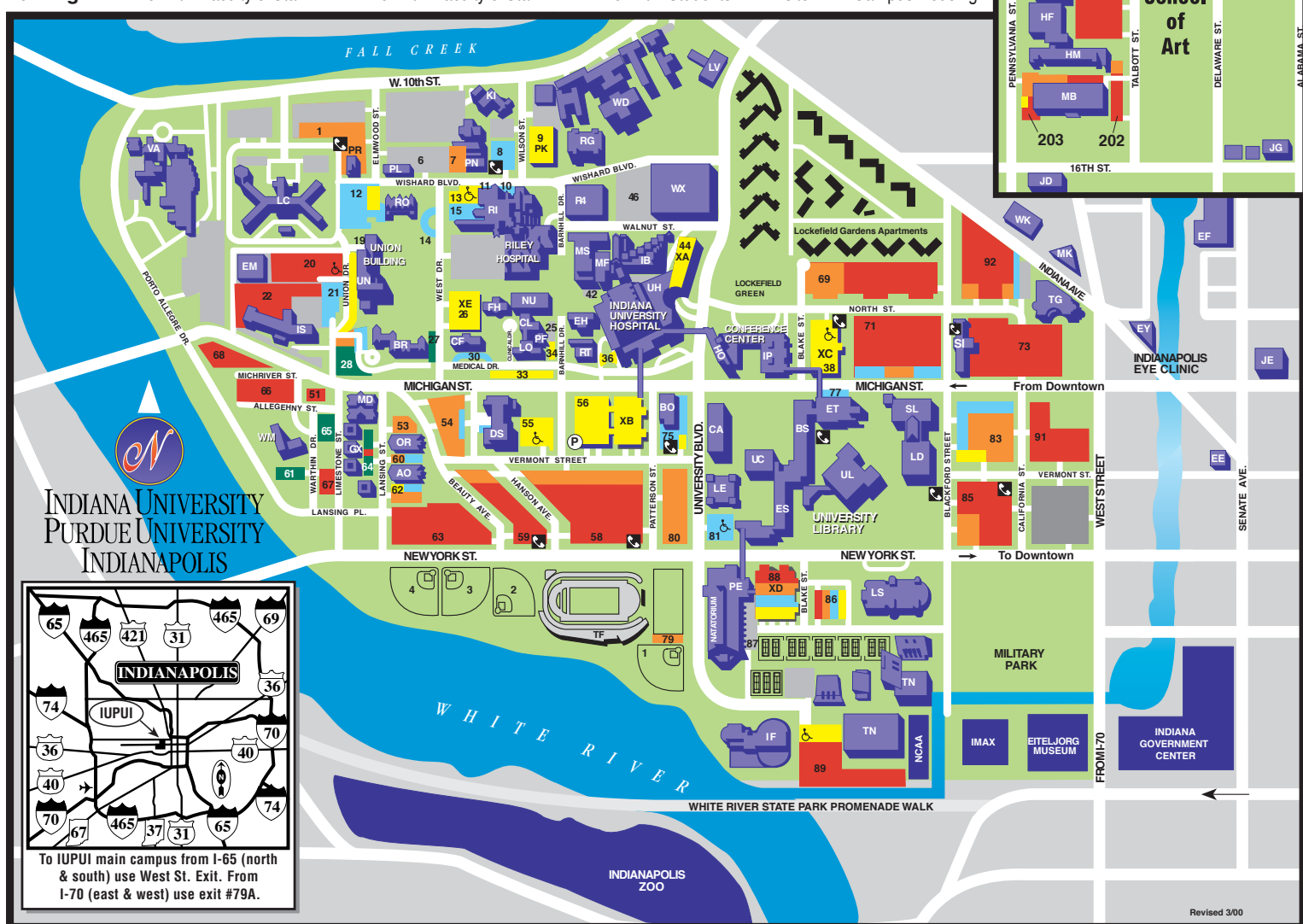
movies, and major campus celebrations can be found:

- through e-mail from *JagNews*
- posted on various bulletin boards around campus
- in the weekly *Sagamore* especially on the page devoted to student-sponsored events
- events.iu.edu/iupui.html on the Web

Campus Calendars: Fall 2002 through Summer 2007

First Semester (Fall)	Day	2002	2003	2004	2005	2006
Classes Begin	W	Aug. 21	Aug. 20	Aug. 25	Aug. 24	Aug. 23
Labor Day (no classes)	M	Sept. 2	Sept. 1	Sept. 6	Sept. 5	Sept. 4
Thanksgiving Recess Begins	W	Nov. 27	Nov. 26	Nov. 24	Nov. 23	Nov. 22
Classes Resume	M	Dec. 2	Dec. 1	Nov. 29	Nov. 28	Nov. 27
Last Day of Classes	M	Dec. 9	Dec. 8	Dec. 13	Dec. 12	Dec. 11
Finals Begin	T	Dec. 10	Dec. 9	Dec. 14	Dec. 13	Dec. 12
Finals End	M	Dec. 16	Dec. 15	Dec. 20	Dec. 19	Dec. 18
Second Semester (Spring)	Day	2003	2004	2005	2006	2007
Classes Begin	M	Jan. 11 (S)	Jan. 10 (S)	Jan. 10	Jan. 9	Jan. 8
Martin Luther King Jr. Day (no classes)	M	Jan. 20	Jan. 19	Jan. 17	Jan. 16	Jan. 15
Spring Recess	M	Mar. 17	Mar. 15	Mar. 14	Mar. 13	Mar. 12
Classes Resume	M	Mar. 24	Mar. 22	Mar. 21	Mar. 20	Mar. 19
Last Day of Classes	M	May 5	May 3	May 2	May 1	Apr. 30
Finals Begin	T	May 3 (S)	May 1 (S)	May 3	May 2	May 1
Finals End	N	May 9 (F)	May 7 (F)	May 8	May 7	May 6
Commencement	N	May 11	May 9	May 15	May 14	May 13
First Summer Session	Day	2003	2004	2005	2006	2007
Classes Begin	W	May 14	May 12	May 11	May 10	May 9
Memorial Day (no classes)	M	May 26	May 31	May 30	May 29	May 28
Classes End	W	June 25	June 23	June 22	June 21	June 20
Second Summer Session	Day	2003	2004	2005	2006	2007
Classes Begin	M	June 30	June 28	June 27	June 26	June 25
Independence Day (no classes)		July 4 (F)	July 5 (M)	July 4 (M)	July 4 (T)	July 4 (W)
Classes End	M	Aug. 11	Aug. 9	Aug. 8	Aug. 7	Aug. 6

Parking: ■ "A" Permit – Faculty & Staff • ■ "B" Permit – Faculty & Staff • ■ "E" Permit – Students • ■ Visitor • ■ Campus Housing



Parking and Transportation
Services Office



Emergency Phones



Parking for Physically Disabled



Metered & Visitor Parking

Alphabetical Key

Administration Bldg. &	AO	355 Lansing St.
Ball Residence &	BR	1226 W. Michigan St.
Bookstores	CA	425 University Blvd.
	HM	1701 N. Pennsylvania St.
	UN	620 Union Dr.
Bowers Bldg. &	BO	957 W. Michigan St.
Business/SPEA Bldg. &	BS	801 W. Michigan St.
Campus Facility Services Bldg.	PL	1220 Wishard Blvd.
Cancer Care Pavilion	RT	535 Barnhill Dr.
Cancer Research	R4	Walnut St.
Cavanaugh Hall & \$	CA	425 University Blvd.
Center for Urban Policy and the Environment &	EE	342 N. Senate Ave.
Clinical Bldg.	CL	541 Clinical Dr.
Coleman Hall	CF	1140 W. Michigan St.
Conference Center &	IP	850 W. Michigan St.
Dental School &	DS	1121 W. Michigan St.
Education/Social Work Bldg. &	ES	902 W. New York St.
Emerson Hall &	EH	545 Barnhill Dr.
Engineering/Science & Technology &	SL	723 W. Michigan St.
Environmental Management Facility	EM	640 Union Dr.
Fesler Hall	FH	1120 South Dr.
Foundry	JG	230 E. 16th. St.
Graduate Townhouse Apts. &	GX	451 Limestone St.
Indiana University Hospital & \$	UH	550 University Blvd.
Indianapolis Tennis Center &	TN	815 W. New York St.
Integrated Technologies	ES	902 W. New York St.
International House &	WM	440 Winona Dr.
Krannert Institute of Cardiology &	KI	1111 W. 10th St.
Law School &	LS	735 W. New York St.
Lecture Hall &	LE	325 University Blvd.

Lockefield Village Long Term Care	LV	Indiana Ave.
Long Hospital &	LO	1110 W. Michigan St.
Magnetic Resonance (Riley)	RI	701 West Dr.
Mary Cable Bldg.	SI	525 N. Blackford St.
Medical Research Facility &	MF	1001 W. Walnut St.
Medical Research/Library Bldg. &	IB	975 W. Walnut St.
Natorium &	PE	901 W. New York St.
National Institute for Fitness & Sport &	IF	250 University Blvd.
Nursing School &	NU	1111 Middle Dr.
Oral Health Research Institute &	OR	415 Lansing St.
Physical Education/Natorium &	PE	901 W. New York St.
Post Office &	PF	536 Barnhill Dr.
Power Plant	PN	1102 North Dr.
Psychiatric Research Institute	PR	791 Union Dr.
Riley Hospital for Children & \$	RI	702 Barnhill Dr.
Ronald McDonald House &	MD	435 Limestone St.
Rotary Bldg. &	RO	702 Rotary Circle
Science Building &	LD	402 Blackford St.
Sigma Theta Tau	TG	550 W. North St.
Small Business Development Ctr. &	EE	342 N. Senate Ave.
Technology Bldg.	ET	799 W. Michigan St.
Track and Field Stadium &	TF	1001 W. New York St.
Union Bldg. & \$	UN	620 Union Dr.
University College &	UC	815 W. Michigan St.
University Library &	UL	755 W. Michigan St.
University Place Conference Ctr. &	IP	850 W. Michigan St.
University Place Hotel &	HO	850 W. Michigan St.
Van Nuys Medical Science Bldg.	MS	635 Barnhill Dr.
Warthin Apartments &	WM	440 Winona Dr.

Other Locations

Herron Fesler Hall	HF	1701 N. Pennsylvania St.
Herron Main Bldg.	HM	1701 N. Pennsylvania St.
Herron Museum Bldg.	MB	1701 N. Pennsylvania St.
Herron Photo Lab	JE	222 W. Michigan St.
Penn Arts Building	JD	111 E. 16th. St.
Parking Garages		
North Street &	XC	819 W. North St.
Riley Outpatient &	XE	575 West Dr.
Sport Complex Garage &	XD	875 W. New York St.
University Hospital Outpatient Center &	XA	600 University Blvd.
Vermont Street &	XB	1004 W. Vermont St.
Wilson Street &	PK	811 Wilson St.
Wishard Parking &	WX	Walnut St.

Neighboring Institutions

Electronics Manufacturing Productivity Facility	EF	714 N. Senate Ave.
Indiana State Board of Health &	IS	1330 W. Michigan St.
Indianapolis Eye Care Center &	EY	501 Indiana Ave.
Larue Carter Hospital &	LC	1315 W. 10th St.
Madame Walker Urban Life Center	MK	617 Indiana Ave.
Regenstrief Health Center & \$	RG	1001 W. 10th St.
Veterans Admin Medical Center &	VA	1481 W. 10th St.
Walker Plaza	WK	719 Indiana Ave.
Wishard Memorial Hospital &	WD	1001 W. 10th St.

& – Indicates Buildings Equipped for the Physically Disabled

\$ – Indicates 24-hour Bank Machines

Tell us how to get in touch with you:

Name

E-mail Address

Enter your comment in the space below:

INDIANA UNIVERSITY- PURDUE UNIVERSITY INDIANAPOLIS

425 University Blvd. Indianapolis, IN 46202-5143

Comments: **IUPUI Office of the Registrar**

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