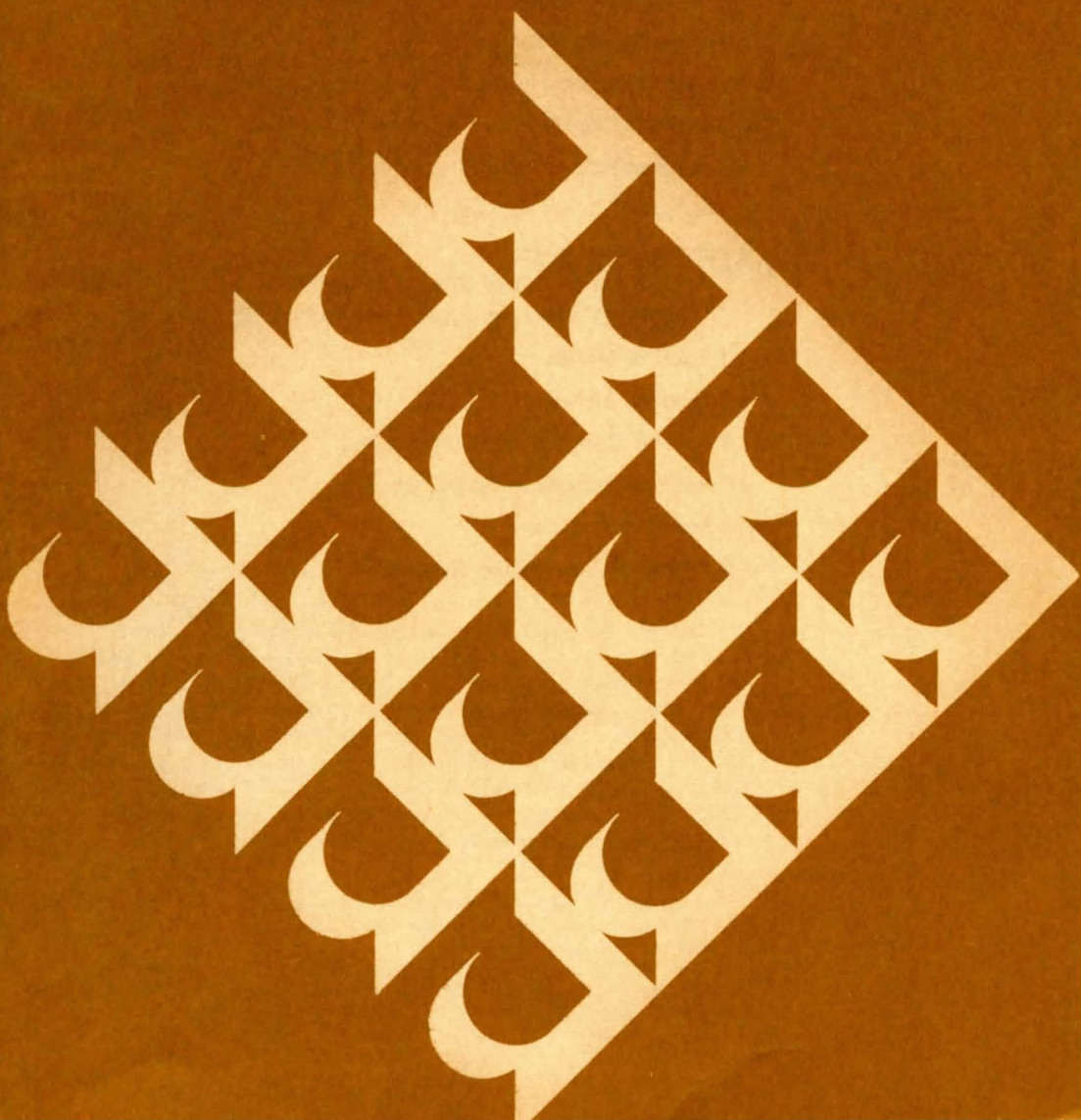


**Division of
Allied Health Sciences**



INDIANA UNIVERSITY

Academic Programs in

★College of Arts and Sciences

★Division of Optometry

★School of Business*

★School of Dentistry

★School of Education*

Division of General and Technical Studies

★Graduate School

★School of Health, Physical Education, and Recreation
Normal College of the American Gymnastic Union

★Herron School of Art

Indianapolis Law School

★University Division

★School of Law

★Graduate Library School

★School of Medicine

★Division of Allied Health Sciences

Division of Postgraduate and Continuing Education

★School of Music

★School of Nursing

Regional Campus Administration †

★Graduate School of Social Service

★Summer Sessions

Division of Continuing Education ‡

Bulletins for most of the above divisions of the University (marked ★) may be obtained from the Office of Records and Admissions, Bryan Hall, Indiana University, Bloomington, Indiana 47401. Other divisions for which *Bulletins* are available should be contacted directly: Indianapolis Law School, 735 West New York Street, Indianapolis, Indiana 46202; Division of General and Technical Studies, 1205 East Tenth Street, Bloomington, Indiana 47401; Normal College of the American Gymnastic Union, 1010 East 64th Street, Indianapolis, Indiana 46260.

* Two *Bulletins* are issued: graduate and undergraduate.

† Write to Regional Campus Administration (Owen Hall) for a *Bulletin*, specifying the particular regional campus.

‡ Brochures on the Bureau of Correspondence Study, Bureau of Public Discussion, Labor Education and Research Center, and Real Estate Continuing Education Programs are available from this Division (Owen Hall).

**DIVISION OF ALLIED HEALTH SCIENCES
OF THE SCHOOL OF MEDICINE**

INDIANA UNIVERSITY - PURDUE UNIVERSITY AT INDIANAPOLIS

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INDIANA UNIVERSITY BULLETIN

(OFFICIAL SERIES)

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Calendars

Bloomington

1970-71

1971-72

First Semester

New student orientation and counseling

University Division.....	Sept. 13, Sun, 7:30 p.m.	Aug. 24, T, 9 a.m.
Transfer and graduate.....	Sept. 14, M, 9 a.m.	Aug. 24, T, 9 a.m.
Counseling.....	Sept. 15, 16; T, W	Aug. 25, 26, 27, 28; W, Th, F, S
Registration.....	Sept. 16, 17, 18, 19; W, Th, F, S	Aug. 25, 26, 27, 28; W, Th, F, S
Classes begin.....	Sept. 21, M, 7:30 a.m.	Aug. 30, M, 7:30 a.m.
Labor Day recess.....		Sept. 6, M
Midterm reports due.....	Nov. 13, F, 5 p.m.	Oct. 22, F, 5 p.m.
Thanksgiving recess begins (after last class).....	Nov. 24, T	Nov. 23, T
Classes resume.....	Nov. 30, M, 7:30 a.m.	Nov. 29, M, 7:30 a.m.
Christmas recess begins (after last class).....	Dec. 19, S	
Classes resume.....	Jan. 4, M, 7:30 a.m.	
Classes end.....	Jan. 21, Th	Dec. 18, S
Departmental exams begin.....	Jan. 22, F, 7:45 a.m.	Dec. 20, M, 7:45 a.m.
Departmental exams end.....	Jan. 29, F, 5:15 p.m.	Dec. 22, W, 5:15 p.m.

Second Semester

New student orientation and counseling

Counseling.....	Feb. 1, M	Jan. 11, T, 9 a.m.
Registration.....	Feb. 2, 3; T, W	Jan. 12, 13, 14, 15; W, Th, F, S
Classes begin.....	Feb. 3, 4, 5, 6; W, Th, F, S	Jan. 12, 13, 14, 15; W, Th, F, S
Midterm reports due.....	Feb. 8, M, 7:30 a.m.	Jan. 17, M, 7:30 a.m.
Spring recess begins (after last class).....	April 2, F, 5 p.m.	March 10, F, 5 p.m.
Classes resume.....	April 3, S	March 11, S
Founders Day*.....	April 12, M, 7:30 a.m.	March 20, M, 7:30 a.m.
Classes end.....	May 5, W	April 19, W
Departmental exams begin.....	May 28, F	May 6, S
Departmental exams end.....	May 29, S, 7:45 a.m.	May 8, M, 7:45 a.m.
Commencement.....	June 5, S, 5:15 p.m.	May 10, W, 5:15 p.m.
	June 14, M, 10 a.m.	May 22, M, 10 a.m.

Summer Sessions

Interession†

Counseling.....	June 8, T, 8 a.m.-12 noon	May 15, M, 8 a.m.-12 noon
Registration.....	June 8, T, 1-5 p.m.	May 15, M, 1-5 p.m.
Classes begin.....	June 9, W	May 16, T
Classes end.....	June 23, W	June 22, Th

Regular Session†

Orientation and counseling.....	June 21, M	June 23, 24; F, S
Registration.....	June 22, 23; T, W	June 23, 24; F, S
Classes begin.....	June 24, Th, 7:30 a.m.	June 26, M
Independence Day Holiday.....	July 4, Sun	July 3, 4; M, T
Classes end.....	Aug. 13, F	Aug. 18, F

Postsession

Counseling.....	Aug. 13, F, 8 a.m.-12 noon
Registration.....	Aug. 13, F, 1-5 p.m.
Classes begin.....	Aug. 14, S
Classes end.....	Aug. 28, S

* 9:30, 10:30, 11:30, and 12:30 classes do not meet.

† Does not include dates for short sessions.

Calendars

Indiana University - Purdue University at Indianapolis 1971-72

First Semester

Classes begin.....	Aug. 25, W
Labor Day Holiday.....	Sept. 6, M
Mid-term reports.....	Oct. 15, F
Thanksgiving recess—first day.....	Nov. 24, W
Classes resume.....	Nov. 29, M
Classes end—last day.....	Dec. 13, M
Exams begin.....	Dec. 14, T
Exams end—last day.....	Dec. 20, M
Semester ends.....	Dec. 22, W

Second Semester

Classes begin.....	Jan. 13, Th
Mid-term reports.....	March 3, F
Spring recess.....	March 6, M
Classes resume.....	March 13, M
Classes end—last day.....	May 3, W
Exams begin.....	May 4, Th
Exams end—last day.....	May 10, W
Semester ends.....	May 12, F
Commencement.....	May 21, S

Summer Session I, 1972

Classes begin.....	May 15, M
Memorial Day Holiday.....	May 29, M
Classes end.....	June 26, M
Session ends.....	June 28, W

Summer Session II, 1972

Classes begin.....	July 5, W
Classes end.....	Aug. 15, T
Session ends.....	Aug. 17, Th

Indiana University General Statement

Indiana University provides a statewide system of public higher education. Created in 1820 by an Act of the General Assembly, Indiana University has grown until it is now ranked the ninth largest university in the nation in terms of full-time enrollment. The University is composed of various academic schools and divisions with a faculty exceeding 3,000. To meet the needs of approximately 59,000 full- and part-time students, the University offers 5,000 courses of instruction in more than 100 departments. Its graduate divisions offer 36 advanced degrees in 62 areas.

Students from all 50 states and from many foreign nations are enrolled on its seven campuses. Indiana University, Bloomington, is in year-round operation, with two regular semesters and a summer program which is one of the largest in the nation.

Campuses. The major divisions of Indiana University are the Bloomington campus, Indiana University - Purdue University at Indianapolis (IUPUI), and five more campuses serving population centers over the state.

The Bloomington campus comprises 2,000 acres of woodland traversed by the meandering stream known to generations of students as the Jordan River. Most major academic buildings are confined to the area between Third and Tenth Streets and Indiana and Jordan Avenues; residence halls, fraternity and sorority houses, and University service divisions border this area. Buildings for the most part are constructed of native limestone, enhancing the natural beauty of the campus.

Indiana University - Purdue University at Indianapolis administratively unifies operations of these two universities in Indianapolis. The state's major concentration of health-care resources, situated on the near west side of the city, includes the School of Medicine, with its Division of Allied Health Sciences, and the Schools of Dentistry and Nursing. Extensive hospital and related facilities provide students with clinical experience. Other facilities include academic and administrative buildings, clinical and research laboratories, residence halls, and the Union Building. On nearby sites, buildings are being constructed for the Downtown Campus. Other IUPUI units are the 38th Street Campus (offering Purdue academic programs), the Graduate School of Social Service, the Normal College of the American Gymnastic Union, the Herron School of Art, and the Indiana University Indianapolis Law School.

The other campuses of the University are Indiana University at Fort Wayne; Indiana University at Kokomo; Indiana University Northwest (Gary); Indiana University at South Bend; and Indiana University Southeast (Jeffersonville-New Albany). Indiana University courses are also offered in a cooperative program at the Eastern Indiana Center of Earlham College in Richmond.

Additional University facilities include Bradford Woods, the Goethe Link Observatory and the Morgan-Monroe Observatory of Goethe Link, the I.U. Biological Station on Crooked Lake, the Kent Farm site, the Lake Monroe biology site, the Angel Mounds historical site near Evansville, Indiana, the Geologic Field Station in Montana, and Camp Brosius at Elkhart Lake, Wisconsin.

ADMISSION

An Indiana resident who (1) graduates from a commissioned (or accredited) high school, (2) ranks in the top half of his class, (3) makes scores above average for a high school senior on the College Board Scholastic Aptitude Test (SAT) or the American College Test (ACT), and (4) completes application procedures at the appointed time may expect admission to Indiana University. Most divisions enrolling freshmen use the same procedures and standards. The Admissions Committee is authorized to make exceptions to the above standards and invites students to submit evidence of unusual skills or abilities. The Division of General and Technical Studies has different admission policies; please consult its *Bulletin*.

Preparatory courses should include four years of English (one-half unit each of speech and journalism may be included) and nine or more units in mathematics, science, foreign language, and social studies. Students seeking admission to the College of Arts and Sciences, School of Nursing, and the Division of Allied Health Sciences should include two or more years each of mathematics, science, and foreign language.

Out-of-state freshmen will be selected from applicants whose rank and test scores are in the top fourth of high school seniors.

Transfer applicants who reside in Indiana and whose grades at all colleges attended average at least C (2.0 on a 4.0 system), whose records of conduct are clear, and whose applications have been completed at the appointed time may expect admission.

Out-of-state transfer students will be admitted from applicants with an average of B or better.

Applications may be filed after completion of the junior year in high school. Early admission will be granted to superior students who have completed the required tests and are taking the necessary senior subjects. Transfer applicants may apply during the school year preceding proposed entry. Closing dates for applications are December 1 for second semester, May 15 for summer sessions, and July 1 for September. An application fee of \$15 is required of each applicant who is new to the University. All questions concerning admission should be directed to the Office of Admissions, Bryan Hall, Indiana University, Bloomington, Indiana 47401.

Inter-campus and intra-University transfers, i.e., students who have been regularly admitted to Indiana University, who have enrolled at one campus or in one degree-granting division, and who have maintained a 2.0 accumulative grade-point average, may transfer to another campus or another degree-granting division or program by complying with established procedures. For this purpose compliance with prescribed filing dates given above is essential.

Transfer students applying for admission to a program within the Division of Allied Health Sciences at Indiana University will NOT be admitted by the Office of Admissions. The Office of Admissions will forward to the Division of Allied Health Sciences Office the transfer credit report. The Division Office will, in turn, forward this report to the appropriate program director for his/her recommendation. This procedure requires extra time; therefore, applications should be filed early. Similarly, admissions to the Division of General and Technical Studies will be forwarded for action.

FEES

Indiana University does not charge resident students a tuition fee for the cost of instruction. Fees charged nonresidents cover in part the cost of instruction. A portion of fees is allocated for cultural and recreational uses and for health services.

Fees are paid at the time of registration each semester and are subject to change by action of the Trustees.

Fee Courtesy. For full-time employees, this courtesy shall provide a waiver of a portion of the basic fees for all courses in which the employee shall be permitted to enroll. For spouses of full-time employees, this courtesy shall provide a waiver of a portion of the basic fees for as many as three credit hours in which the spouse shall be enrolled in each regular semester and summer session, excluding intersession and post-session. The reduction in amount of fees to be paid under this courtesy, in all divisions of the University, shall not exceed one half of the basic, in-state fees for an undergraduate student in the College of Arts and Sciences enrolled in the number of credit hours for which the employee or spouse is eligible to receive fee courtesy.

Basic Costs. Expenses for an undergraduate Indiana resident attending Indiana University at Bloomington for an academic year, including fees, housing (room and board), and books and supplies, total approximately \$1,750. Expenditures for clothing, travel, entertainment, and personal items are not included in this estimate.

Veterans Benefits. Students who are eligible for veteran benefits may enroll under the following scale of benefits:

Undergraduates	Benefits	Graduates
14 hours or more.....	full benefits.....	12 hours or more
10 through 13 hours.....	$\frac{3}{4}$ benefits.....	9 through 11 hours
7 through 9 hours.....	$\frac{1}{2}$ benefits.....	6 through 8 hours
fewer than 7 hours.....	tuition only.....	fewer than 6 hours

For further information, consult the Veterans Benefits Office, 801 N. Jordan, Bloomington, Indiana 47401. Tel. 7-7578.

Fee Schedule, 1971-72 FIRST AND SECOND SEMESTERS

BLOOMINGTON

	Indiana Resident	Nonresident
Undergraduate* (12-17 hours)†	\$325/sem.	\$745/sem.
Undergraduate* (1-11 hours)	\$ 27/cr. hr.	\$ 62/cr. hr.
Graduate‡	\$ 27/cr. hr.	\$ 62/cr. hr.
Auditing (lecture courses only)§		
Full-time students (12 or more hours)		no charge
Part-time students		\$10/cr. hr.
Special fees (in addition to basic fees)		
Applied music 		\$35/sem.
Student teaching		\$50
Late enrollment or re-enrollment		\$25
Special examination		\$ 5 to 10
Bowling, golf, horsemanship		(payment made to bowling alley, golf course, or academy for use of facilities)
Transcripts (after first)		\$ 1
Deposits (to cover loss or breakage)		
ROTC		\$10
Band		\$ 5
Singing Hoosiers		\$ 5
Rentals		
Music instruments		\$5 to \$25 a semester for each hour of daily use
Practice room		\$3 a semester for each hour of daily use
(above rentals not charged if applied music fee is paid)		
Lockers		
Woodburn Hall, Law Building, Ballantine Hall, Music Building, and HPER Building (for persons not enrolled in HPER courses for credit)		\$5 deposit, \$1-\$1.50 rent deducted a semester
Correspondence Study		
College-credit courses (residents and nonresidents)		\$20/cr. hr.
High school courses (residents and nonresidents)		\$20/course

* Includes Evening Division, and Special Students.

† An additional charge is made at the appropriate credit-hour rate for each credit hour taken in excess of 17.

‡ Includes School of Law.

§ Noncredit participants in courses which cannot be audited pay regular fees.

|| Persons desiring applied music who are not regularly working toward a degree will be charged \$150 per applied music course. Nonmusic majors will be charged \$35 for each applied music course.

INDIANAPOLIS

	Indiana Resident	Nonresident
Undergraduate*	\$ 20/cr. hr.	\$ 40/cr. hr.
Graduate†	\$ 25/cr. hr.	\$ 50/cr. hr.
Medicine	\$500/sem.	\$1,050/sem.
Dentistry	\$425/sem.	\$ 900/sem.
Law	\$ 27/cr. hr.	\$ 62/cr. hr.
Radiologic (X-Ray) Technology	\$185/year	\$ 185/year
Herron School of Art	\$ 26/cr. hr.	\$ 26/cr. hr.

REGIONAL CAMPUSES

	Indiana Resident	Nonresident
Undergraduate	\$ 20/cr. hr.	\$ 40/cr. hr.
Graduate	\$ 25/cr. hr.	\$ 50/cr. hr.

SUMMER SESSIONS (1971)**BLOOMINGTON**

Undergraduate	\$ 27/cr. hr.	\$ 62/cr. hr.
Graduate‡	\$ 27/cr. hr.	\$ 62/cr. hr.

OTHER CAMPUSES

Undergraduate	\$ 20/cr. hr.	\$ 40/cr. hr.
Graduate	\$ 25/cr. hr.	\$ 50/cr. hr.

Fee Refund Schedule, 1971-72**FIRST AND SECOND SEMESTERS****BLOOMINGTON, INDIANAPOLIS LAW,
MEDICAL CENTER**

	Full Withdrawal	Partial Withdrawal
First week, or until Class Change Day	100%	100%
Second and third weeks	50% or all except \$50, whichever is larger	none
Thereafter	none	none

REGIONAL CAMPUSES

First week	100%
Second week	60%
Third week	40%
Fourth week	20%
Thereafter	none

REGULAR SUMMER SESSION (1971)**BLOOMINGTON, INDIANAPOLIS LAW,
MEDICAL CENTER**

	Full Withdrawal	Partial Withdrawal
First week, or until Class Change Day	100%	100%
Second week	50% or all except \$50, whichever is larger	none
Thereafter	none	none

REGIONAL CAMPUSES

First week	100%
Second week	40%
Thereafter	none

* Includes Downtown Campus, Nursing, Allied Health Sciences, Dental Hygiene, General and Technical Studies, NCAGU.

† Includes Graduate School, Graduate Library School, Graduate School of Social Service, and Graduate Divisions of Education, Business, HPER, Nursing, Dietetics, Dentistry.

‡ Includes School of Law.

Rule Determining Resident and Nonresident Student Status

This Rule establishes the policy under which students shall be classified as resident or nonresident upon all campuses of Indiana University. A nonresident student shall pay a nonresident fee in addition to fees paid by a resident student.

This Rule took effect July 1, 1969, and applies to all determinations of student residence status made on and after that date; provided, that no person properly classified as a resident student before July 1, 1969, shall be adversely affected by this Rule, so long as he attended the University before that date and remains continuously enrolled in the University.

"Residence," as the term, or any of its variations, is used in the context of this Rule for the purpose of defining the presence of a student within the state of Indiana and entitlement to resident student fee status, means the establishment of a permanent dwelling place within the state, the continued presence in such dwelling, and a continuing intent to remain within the state. Evidence that a person intends to leave the state when a particular purpose is achieved negates residence. Ordinarily it will be presumed that a person entering Indiana from another state or country for the purpose of attending an institution of higher education does so with the intent of remaining only for the period required to attain educational goals and does not acquire residence. The facts that a person pays taxes and votes in Indiana will not overcome this presumption.

1. A "resident student" must have continuously resided in Indiana for at least six (6) months immediately preceding the first scheduled day of classes of the semester or other session in which the individual enrolls in the University.

a. The residence of a minor follows that of the parents or of a legal guardian who has actual custody of the minor or administers the property of the minor. In the case of divorce or separation, if either parent meets the residence requirements, the child will be considered a resident.

b. A minor student who comes from another state or country for the predominant purpose of attending the University shall not be admitted to resident student status upon the basis of the residence of a guardian, except upon appeal to the Trustees in each case.

c. The residence of a wife follows that of her husband; however, no woman shall lose her residency status because of marriage, if she continues enrolled in the University until she earns the degree for which she is enrolled at the time of marriage.

2. Physical presence in Indiana for the predominant purpose of attending a college, university, or other institution of education, except high school or its equivalent, shall not be counted in determining whether a person is a "resident student."

3. Nationality of a person shall not be a factor in determining resident student status if such person has the legal capacity to remain permanently in the United States.

4. 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 his degree shall have been earned.

5. The Registrar or the person fulfilling those duties on each campus shall classify each student as resident or nonresident and may require and question proof of relevant facts. The burden of proof is upon the student making a claim to resident student status.

6. A Standing Committee on Residence shall be appointed by the President of the University.

7. A student who is not satisfied by the determination of the Registrar may lodge a written appeal with the Standing Committee on Residence, which Committee shall review the appeal in a fair manner and shall, if time and circumstances permit or require, afford to the student a personal hearing. The Committee shall report its determination to the Registrar, who shall forward it to the student.

8. 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 this Rule, or is consistent with a decision of the Trustees; provided, that each such instance shall be promptly reported to the Trustees for approval.

9. A student, within thirty (30) days after notice of an adverse decision by the Committee on Residence, may file an appeal to the Trustees with the Secretary of the Board of Trustees.

10. A student or prospective student who shall knowingly provide false information or shall refuse or conceal information for the purpose of 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 classification as a nonresident student, within thirty (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 shall be deemed to have waived any alleged overpayment of fees for that semester or session.

ACADEMIC REGULATIONS

Degree Requirements. The student is held responsible for understanding all requirements for graduation and for completing them by the time he expects to graduate. Information concerning a specific school or division can be obtained by consulting the *Bulletin* of that school.

Total hours required for the baccalaureate degree are 122 to 124, determined by the individual school. A minimum accumulative grade-point average of 2.0 (on a 4.0 basis) is necessary. Class standing is based on credit hours completed: freshman, fewer than 27; sophomore, 27-55; junior, 56-85; senior, 86 or more.

UNIVERSITY DIVISION

All students entering Indiana University directly from high school and all students transferring to the University during their freshman year enter the University Division. The chief purpose of the University Division is to guide the freshman student toward his educational goal.

The Division of Allied Health Sciences cooperates with the University Division in advising students during their freshman year. Therefore, when preparing its *Bulletin* for publication, the Division assumes that the student also possesses a copy of the current University Division *Bulletin*, which includes under the section "University Division" all the information relevant to the Bloomington campus. When appropriate, *Bulletins* of the other Indiana University campuses should be consulted for information on registration, orientation, and student services. The statements on academic standards and academic regulations contained in the University Division *Bulletin* are generally applicable to all campuses of the University.

Counseling. Each freshman is assigned a faculty counselor (usually in his major department), who advises him in his program-planning and assists him with any academic questions or problems.

Orientation and Registration. All new freshmen should participate in the pre-registration program held from mid-July through early August, and all freshmen will be expected to participate in the fall orientation program on campus, which acquaints them with organizations and services of the University and instructs them in study techniques.

SCHOLASTIC INFORMATION

Minimum and Maximum Semester Enrollment. Students are not permitted to enroll in fewer than 12 or more than 17 hours except with permission of his dean. Normally a student must have earned a grade-point average of 3.0 or higher in his last completed semester to receive permission to carry more than 17 hours. Only in very exceptional cases may a student's semester enrollment exceed 19 hours.

Grades. The quality of a student's work is indicated by the following grades:

A—Unusual degree of academic performance.

B—Above average achievement.

C—Average achievement.

D—Passing work but below desired standards.

F—Failure in a course or failure to complete a course without an authorized withdrawal.

P—Pass. Given to the student who registers for HPER M130 or W100 or electives under the pass/fail option (see page 13) and completes the course with a grade of A, B, C, or D. The Registrar will be responsible for converting the instructor's grade to a P (pass), which is *not* counted in computing the accumulative grade-point average; a grade of F (fail) is counted in computing the grade-point average.

S—Satisfactory. May be used only with approval of the Dean of the School and the Dean of the Faculties. Credits earned with the grade S count toward graduation but are not computed in the grade-point average. The grade S is assigned where credit by examination is awarded by the University when the examination is of passing quality but does not clearly merit an A grade.

W—Withdrawn. Given automatically when the student, with the approval of his academic adviser and his dean, officially withdraws during the first three weeks of a semester or first two weeks of a summer session. After these deadlines the grade W is given, in the instance of an approved and properly executed withdrawal, only if the student is passing at the time of withdrawal.

WF—Withdrawn, failing. Given when the student withdraws after three weeks of a semester or two weeks of a summer session, if his work is not passing at the time of withdrawal.

I—Incomplete. May be given only when the work of the course is substantially completed and when the completed portion of a student's work in the course is of passing quality. When an Incomplete is assigned, a record must be maintained in the office of the department in which the grade was given. The record will include a statement of the reason for recording the Incomplete and an adequate guide for its removal, with a suggested final grade in the event of the departure or extended absence of the instructor from the campus.

A student must remove the Incomplete within one calendar year from the date of its recording, except that his dean may authorize adjustment of this period in exceptional circumstances. *If the student fails to remove the Incomplete within the time allowed, his dean will authorize the Office of Records and Admissions to change the grade to F.* Both the student and the instructor will be notified of this change in grade.

When the grade of Incomplete is given because the student missed the final examination, he will be allowed to remove the Incomplete by taking the examination only if he has the approval of the Committee on Absence and the instructor.

The student may not register in a course in which he has a grade of Incomplete.

These regulations do not apply to research and reading courses in which completion of the work of the course is not necessarily required at the end of the semester. Once a student has graduated, nothing in these regulations shall prohibit the Incomplete from remaining on the record.

Withdrawals. A grade of W is given automatically to the undergraduate student who withdraws during the first three weeks of a regular semester and during the first two weeks of a summer session on the date of his withdrawal. Thereafter, it is given only when the student withdraws with the approval of his dean, based on urgent reasons relating to health or equivalent distress, and if the student is passing on the date of withdrawal. If the student is failing on the date of withdrawal, the grade recorded on that date shall be WF (withdrawn, failing). If a student is not in attendance during the last several weeks of a semester, the instructor may report a grade of I (indicating the work is satisfactory at the end of the semester but has not been completed) if he has reason to believe the absence was beyond the student's control; if not, he shall record a grade of F. A grade of Incomplete must be removed within one calendar year of the date of its recording or the dean of the school in which the student is enrolled will authorize the grade to be changed to F. A grade of Incomplete may be removed if the student completes the work within the time limit or if the dean authorizes the change of the Incomplete to W.

Addition of Courses. No course may be added by undergraduate students after the first two weeks of a regular session or one week in a summer session unless the instructor of the course petitions that an exception be made and the request is approved by the dean of the school in which the course is offered and the dean of the school in which the student is enrolled.

Absences. Illness is usually the only acceptable excuse for absence from class and must be officially confirmed. A student's excessive absence will be reported by his instructor to the Dean of Students.

A student who misses a final examination and who has a passing grade up to that time is given temporarily a grade of Incomplete if the instructor has reason to believe the absence was beyond the student's control. The Committee on Absence of the Office of the Dean of Students reviews excuses for absences from final examinations and notifies instructors of its decisions.

Academic Probation and Dismissal. A student is on academic probation whenever his accumulative grade-point average is below C (2.0). He is also on probation for the duration of the next regular semester or summer session in which he is enrolled, following the one in which he failed to attain a C (2.0) average.

Every student on academic probation must comply with such restrictions as the Office of the Dean of Students or the dean or director of the school or campus in which the student is registered may deem necessary.

Dismissal. Specific minimum standards must be met in order to be retained as a candidate for a baccalaureate degree. A University Division student will be dismissed if:

1. At the end of one semester his grade-point average falls below 1.0.
2. At the end of the second semester his accumulative grade-point average falls below 1.501.
3. At the end of the third semester his accumulative grade-point average falls below 1.900.

A student in the Division of Allied Health Sciences is dismissed when, in the judgment of the council of program directors, he has ceased to make progress toward a degree. When a student has failed to attain a C (2.0) average in any two semesters and has an accumulative average below C (2.0), or when he has failed to make higher than a D (1.0) average in any one semester, he will be dismissed as not making progress toward his degree.

Opportunities for Superior Students. The honors program, offered by some schools of the University, allows the student of superior ability and achievement to follow a course of independent study and research. Special sections for accelerated work are offered in some courses, and by special examination, one may establish advanced standing or gain exemption from certain required courses. Further infor-

tion on specific honors programs may be obtained by consulting the department head or the dean of the school.

Students satisfying the requirements of a departmental honors program are granted degrees with Honors. The University also recognizes high cumulative grade averages by awarding degrees with various designations of "Distinction," "High Distinction," and "Highest Distinction."

Credit by Examination. The student may no longer receive credit for language courses by performance on placement examinations. The student who believes he is eligible for special credit because of superior preparation or independent study is especially urged to accelerate his college program by taking appropriate examinations.

Pass/Fail Option. The policy on the student's use of this option differs among the divisions and schools of Indiana University (see the appropriate *Bulletins*). In the Division of Allied Health Sciences, the *only* courses which may be taken under this option are the School of Health, Physical Education, and Recreation courses M130 and W100 and any elective course. If any of these courses is passed with a grade of A, B, C, or D, the grade of the student enrolling under this option will be converted to a P (pass) by the Registrar; if the grade is F (fail), that grade will be so recorded by the Registrar. The grade P is *not* counted in computing the grade-point average; the grade F is counted. Any student enrolling under this option may not later change the basis of his enrollment.

Medical Center

The Medical Center at Indianapolis includes 80 acres and the Schools of Dentistry and Nursing, the School of Medicine and its Division of Allied Health Sciences, the Robert W. Long Hospital, the James Whitcomb Riley Hospital for Children (including the Kiwanis Wing), the Rotary Building, the Clinical Building, the William H. Coleman Hospital for Women, the Union Building, the Medical Science Building, and the new University Hospital. Located adjacent to the Medical Center are Marion County General Hospital, Veterans Hospital, and the LaRue D. Carter Memorial Hospital. Such a situation is ideal for study in all programs of the health sciences. Students are admitted to all the University hospitals and clinics for training and observation.

HOUSING AT INDIANAPOLIS

Official applications for housing at the University's Medical Center campus may be obtained from Philip McQuillen, Director of Housing, Indiana University Medical Center, 440 North Winona Street, Indianapolis, Indiana 46202. A small photograph and a \$25 loss-and-breakage deposit must accompany the application. Space assignments are made on the basis of the date the deposit is received. The Housing Office also maintains a file of approved off-campus facilities which may be checked in person in this office.

Dormitories for unmarried students are located adjacent to, and directly connected with, the Union Building. Each floor includes a lounge, and at the top of the building is a roof lounge for parties and informal social meetings. Each room includes storage space, campus telephone, and air conditioning. Central bathrooms are available on each floor. The dormitory wing is accessible to the main cafeteria and lounge of the Union Building.

In the single-student dormitory (where occupants furnish their own towels, bedspreads, and blankets), double rooms are \$53.50 per person per month; when available, these double rooms may be rented as single rooms for \$76.50 per month. In the Union Building, the rates are: for small double rooms, \$58 per person per month; for double rooms, \$61 per person per month; for suite rooms, \$63 per person per month; when available, small double rooms may be rented as single rooms for \$83 per month.

Winona Village (for men only) consists of temporary barracks-type units with 35 double rooms accommodating 70 men, located west of the Union Building. Occupants furnish their own towels, bedspreads, and blankets. Rates are \$41 per person per month; when available, double rooms may be rented as single rooms for \$54 per month.

Unfurnished apartments for married students include efficiency, one-bedroom, and two-bedroom accommodations. The rentals range from \$68.50 to \$121 per month. Furnished apartments include efficiencies at \$106 per month and one-bedroom apartments at \$131 per month.

Rates are subject to change by action of the Trustees.

STUDENT ACTIVITIES AT INDIANAPOLIS

The city of Indianapolis has much to offer the student. The nationally famous Indianapolis Symphony presents concerts throughout the winter season. Several civic theatre groups, as well as touring troupes which frequently visit, provide a widely varied program of plays. Butler University, Indiana Central College, and Marian College are all located in Indianapolis. Art galleries, libraries, and museums enrich the city. There are seven radio stations, three television studios, and many movie houses to entertain the Indianapolis resident.

The proximity of Bloomington also allows an evening's entertainment on that campus, where a series of inviting programs of theatre, music, and lectures which the Medical

Center students may attend are scheduled. Indiana University basketball and football tickets are available at student prices, and many Medical Center students plan weekends on the Bloomington campus as part of their social calendar.

A variety of recreational activities is offered to students. Facilities are available for dances, teas, parties, movies, tennis, archery, ping pong, baseball, badminton, basketball, swimming, and bicycling.

Student Union Board. The Student Union Board at IUPUI provides cultural, social, and recreational activities for all students on that campus. The organization is composed of two representatives from each of these eleven divisions or programs: Division of Allied Health Sciences, Downtown Campus, Graduate School of Social Service, Herron School of Art, Indiana University (Methodist) Associate of Arts in Nursing Program, Indianapolis Law School, Normal College of the American Gymnastic Union, School of Dentistry, School of Medicine, School of Nursing Degree Programs, and the Medical Sciences Graduate School.

Music. The campus chorus, Medical Center Choraliers, is open to all students on the Medical Center campus. It provides music for school and civic occasions.

Religious Activity. The Medical Center chaplain's office is open for personal appointments at any time. A chaplain is available for students of each faith to provide spiritual leadership to individuals and to their religious groups.

Campus religion groups include: the Inter-Varsity Christian Fellowship, an inter-denominational group, and the Newman Club, primarily for Catholic students.

STUDENT SERVICES AT INDIANAPOLIS

Union Building. This campus is one of the few medical centers in the country that has its own Union Building. The Union Building provides a variety of activities and services to students, faculty, and staff and to visitors and guests of the University.

Eating facilities include a snack bar and cafeteria. Barber and beauty shops also are located in the Union.

The bookstore carries all necessary textbooks and supplies for the Schools of Medicine, Dentistry, and Nursing and for the Allied Health Sciences courses. Magazines, supplies, novelties, and toilet articles may also be purchased.

Library. The combined libraries of the Schools of Medicine and Nursing are located in the middle section of the first and basement floors of the Medical Science Building. The Library seats 208 persons, contains 80,695 volumes, and subscribes to 2,269 foreign and domestic periodicals. Most of the journal files are complete, and gaps are being filled through exchange of duplicate volumes with other medical libraries, gifts, and direct purchases. The current issues of some 400 important periodical titles, as well as reference materials, selected indices, encyclopedias, and dictionaries, are shelved in the reading room. A handbook describing the Library and its services is available upon request. *InU-M* (a computer-produced list of serial holdings) and three KWIC indices to various government publications have been compiled by the library staff. The Library *Newsletter* and *List of Selected Acquisitions*, including the supplements to *InU-M*, are distributed bimonthly. Four current alerting services are available to staff and students. A TWX network to 150 communities in Indiana provides rapid library service to physicians in the state.

Student Health Service. This service is available to students of the Schools of Medicine, Nursing, and Dentistry, the Division of Allied Health Sciences, the Normal College of the American Gymnastic Union, and the Graduate School of Social Service, as well as to the staff and faculty of the University. It offers complete clinical and laboratory examinations, immunizations, dispensary or infirmary care for minor illnesses, and limited hospital care for major illness or surgical operations. Optional health insurance, which provides coverage for dependents and which extends coverage to the student when away from the Medical Center campus, is also available.

FINANCIAL AID

General University scholarships and financial aids are available to students in Allied Health Sciences; in addition, there are special scholarships and loans available only to Allied Health Sciences students.

Scholarships and Educational Opportunity Grants. General University scholarships are available to students of high academic achievement. Students whose parents are able to provide limited financial assistance are eligible to be considered for the Educational Opportunity Grant Program established under the Higher Education Act of 1965.

Loans. The Student Loan Program was established under the National Defense Act of 1958, and loans are available to full-time or half-time students who need financial assistance. The loan and interest thereon of any borrower who is employed full-time in the teaching profession in a public or private institution at any level (elementary, secondary, or higher education), may be cancelled up to a maximum of 50 percent at the rate of 10 percent a year.

The Guaranteed Loan Program was established under the Higher Education Act of 1965. Loans made by commercial banks or other lending institutions are guaranteed by federal funds provided under the Act. Interest is paid by federal funds for a student whose family income is under \$15,000 during the time the student is in school. Repayment begins nine months after graduation or leaving school; the principal, with interest at 7 percent on the unpaid balance, is paid over a maximum period of ten years with a minimum annual payment of \$360.

Applications. Application for financial aid should be made to the Office of Scholarships and Financial Aids, 809 East Seventh Street, Indiana University, Bloomington, Indiana 47401; or 1207 East Thirty-eighth Street, Indianapolis, Indiana; or at any of the other Indiana University campuses. Incoming freshman students should apply before February 15. Upperclass students should apply by April 1 for renewal of previous awards and for consideration for new awards.

Employment. Any student wishing employment in the various departments of IUPUI may apply to the Personnel Department at the Medical Center.

The federal Work-Study Program for which students in Allied Health Sciences also are eligible expands employment opportunities for students who must finance the major portion of their education. Application for the Work-Study Program is made through the general financial aid application mentioned above.

Aids to Veterans. The University is approved under the G.I. Bill and the War Orphans Education Program. Information on financial aid available to veterans under government benefits of public laws may be secured through the Veterans Administration Regional Office, 36 South Pennsylvania Avenue, Indianapolis, Indiana 46204.

Any student who has been a resident of Indiana for the last five years, and whose parent has a service-connected disability or whose parent's death was the result of service in the armed forces, is eligible for the Child-of-Disabled Veteran Award. This award pays all fees except building and health fees, which are nonremittable. Application for this award is made through the Office of Scholarships and Financial Aids.

Public Health Service Traineeships. The University is approved as a training center for advanced students in the allied health professions. Qualified students who plan to continue in a teaching capacity may apply for stipends and tuition. Graduate traineeships are now available on a selective basis in Medical Technology and Dietetics. Other programs may soon qualify for grant support.

These grants are made possible by the Allied Health Professions Personnel Training Act of 1966 (Public Law 89-751) administered by the U.S. Public Health Service, Department of Health, Education and Welfare. For further information, write to Mr. R. Martin Bruns, Assistant Director, Division of Allied Health Sciences, IUPUI Medical Center, 1100 West Michigan Street, Indianapolis, Indiana 46202.

Division of Allied Health Sciences

As a part of the School of Medicine, the Division is concerned with the preparation of personnel in the health-related areas on the undergraduate level. The Division was established in September, 1959, by action of the Trustees of Indiana University. In 1960, the Board of 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 the following areas of study: Medical Records, Medical Technology, Occupational Therapy, Physical Therapy, Public Health Dental Hygiene, Public Health Education, and Public Health-Environmental Health. In 1964 the Public Health Administration program was approved, and in 1965, the Cytotechnology degree program. The first two-year associate degree program in Inhalation Therapy (now known as Respiratory Therapy) was approved in 1965. Radiologic Technology in 1966 and Hospital Dietary Technology in 1968 were added as associate degree programs in the Division of General and Technical Studies.

Accreditation. The Division 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 Secondary Schools.

The programs in Cytotechnology, Medical Records, Medical Technology, Occupational Therapy, Physical Therapy, Radiologic Technology, and Respiratory Therapy are, in addition, fully approved by the Council on Medical Education of the American Medical Association. The program in Dental Hygiene is approved by the American Dental Association.

As soon as a student wishes to select and enter an Allied Health Sciences program he should write the Director of the Division. This letter should explain how he became interested in and what his purpose is in entering the program. Notations about special skills, interests, hobbies, and purposes, as well as a full explanation of any handicaps, should also be included. This can be done *at matriculation from any one of the Indiana University campuses or on certification out of the University Division*. The minimum requirements for admission by certification include 26 credit hours with a minimum accumulative average of C. Also required is at least one personal interview, for which out-of-state applicants may make special arrangements. Applications for entry into one of the programs are usually filled out at the personal interview, but may be obtained from Mrs. Miriam Rollins at the Bloomington Office, Room 203, Myers Hall, telephone 337-9404; the Indianapolis Office, Room 228, Administration Building, telephone 264-8602; or from the program directors.

Programs at Other Indiana University Campuses. Many of the degree courses required for programs in the Division of Allied Health Sciences are available at other Indiana University campuses. In some programs, all degree requirements may be completed on one of these campuses (Fort Wayne, Northwest, South Bend). Some non-degree programs may be offered only on a campus outside Indianapolis (dental assistant, Fort Wayne). Certificate and associate degree programs in the Division of General and Technical Studies are being developed as regional need is demonstrated and funds become available. The Indianapolis Office, through advisers on each campus, keeps in contact with students there, especially in connection with the courses currently being offered on the respective campuses.

In the Division of Allied Health Sciences the program directors comprise the Probation Committee (see page 12) and the Admissions Committee (see pages 5, 20) and recommend the awarding of degrees, certificates, and honors. The Director of the Division acts as Dean of the Division.

Graduate Programs. Both the Graduate School and the Graduate Division of the School of Education offer opportunities for M.S. and Ph.D. degrees for the programs in the Division of Allied Health Sciences. Since most workers in health sciences are involved in teaching adults, the School of Education offers courses designed to prepare its students for adult education, while the Division provides the professional opportunity. The Graduate School offers options in biochemistry and microbiology for medical technologists on both the Bloomington and Indianapolis campuses. Because admission and degree requirements vary, a candidate should communicate both with the Division of Allied Health Sciences and a particular graduate school or division. Each candidate is now counseled individually by both the Division of Allied Health Sciences and the cooperating school or division he chooses.

CURRICULUM

The curriculum pattern of the Division of Allied Health Sciences calls for a year in the University Division and, in some majors, one or two additional years of preparatory work. The last one or two years, depending on the program, consist of preprofessional courses and/or clinical field training supervised by directors at the Medical Center, Indiana University at Fort Wayne, and/or affiliated areas outside Indianapolis.

Those programs requiring field training are: Medical Records, Occupational Therapy, Physical Therapy, Public Health Education, Public Health-Environmental Health, and Public Health Administration.

Core Curriculum. The core curriculum established for students in the Division of Allied Health Sciences includes: Elementary Composition and Speech courses, 4 credit hours; Social Sciences, 6-credit-hours sequence; Literature, Philosophy, and the Arts, 6-credit-hours sequence; Chemistry, 5 credit hours; and Zoology (not required for Dental Hygiene or Respiratory Therapy), 5 credit hours.

The specific recommendations indicated in the University Division *Bulletins* suffice for freshmen; the list of "Courses Open to Freshmen" found therein are particularly helpful to the student at Bloomington. Similar information on course offerings is available in the appropriate *Bulletins* of the other Indiana University campuses.

The Division of Allied Health Sciences permits the widest possible latitude in elective credits. In addition to checking the list of "Core and Elective Courses" on pages 54-64 of this *Bulletin*, the student may also consult the *Bulletins* of the College of Arts and Sciences and the Schools of Business, Education, Music, etc.

It is possible for the student to accomplish a "double objective" in, for example, Allied Health Sciences and Education by judicious planning and early consultation with his adviser.

The 6-credit-hours sequence may be selected from:

SOCIAL SCIENCES

Anthropology: A103 or A303, A104 or A304

Economics: E201-E202, E300

Geography: G210, G313, G326

History: 6 hours

Political Science: any 6 hours

Sociology: S161 and S163 or S161 and S232

LITERATURE, PHILOSOPHY, AND THE ARTS

The Arts: Fine Arts (any 6 hours in A100 series), Music M174, Speech S240 (minimum of 5 hours)

Asian Languages: Arabic, Chinese, Hebrew, Japanese, Korean, Persian: third- or fourth-year courses of a literary character

Classics: C250 and C260

Comparative Literature: C145, C146, or third- or fourth-year courses

English: L101-L102

French, German, Italian, Portuguese, or Spanish: third- or fourth-year courses of a literary character
Greek or Latin: second-, third-, or fourth-year courses of a literary character
Music: M201-M202
Philosophy: any 6 hours
Religion: any 6 hours

For complete course listings for the Social Sciences and the Literature, Philosophy, and the Arts sequences, see courses on pages 54-64.

Preprofessional Requirements. In addition to the core curriculum, certain courses are required to complete the preprofessional requirements (see specific area of study in the program section). Credit will not be given for courses which duplicate work already taken by the student.

ADMISSION AND GRADUATION

Application to the Professional Program. Selection of those to be admitted to the professional program will begin on or before February 1 of each year from the applicants who have filed or re-filed for admission prior to this date. Applications filed after May 1 will be processed as received, and selections will be made as long as vacancies exist or occur in the class to be admitted for the following academic year. Applications may be received and acted upon prior to the completion of all preprofessional requirements if the transcript of work completed at the time shows the reasonable probability that all requirements can be satisfactorily completed prior to the date of the opening classes.

All completed applications are to be submitted by the applicant to the Office of the Division of Allied Health Sciences at either Bloomington or Indianapolis. The Division Office will forward the application to the appropriate program office for recommendations.

Admission. Before a student may request admission to the Medical Center campus to continue his studies within the Division of Allied Health Sciences, he must present a minimum accumulative average of C and academic credit hours, including the necessary prerequisite courses, as follows: Cytotechnology, Medical Records, Medical Technology, Public Health Dental Hygiene, Public Health Administration, Public Health Education, and Public Health-Environmental Health, 90; Occupational Therapy and Physical Therapy, 60; and Respiratory Therapy, 29. The Radiologic Technology curriculum gives preference to those with college courses.

Credit is not given toward the 120 academic hours required for graduation for physical education or military science; however, physical education courses are counted in figuring accumulative grade averages. Physical Therapy will not give credit for anatomy and physiology taken elsewhere than in the School of Medicine. A minimum accumulative average of C+ (2.5) is required for admission to the Physical Therapy program.

Physical Examination. A physical examination and record of immunizations shall be furnished by the applicant's own physician. An immunization blank will be sent automatically upon admission to the Medical Center campus. The physical examination may follow the physician's own desire but should particularly list visual, auditory, or orthopedic handicaps. A statement relative to emotional stability is important.

ACADEMIC INFORMATION

Grade Code. The letter grades used by the Medical Center campus are the same as for the Bloomington campus. All rulings concerning I, incomplete; W, withdrawn; and WF, failing or unauthorized withdrawal, can be found on page 11 of this *Bulletin*.

Grade Reports. Grade reports are mailed to students as soon as possible after the end of a semester.

Probation. A student is placed on probation for the semester succeeding the one in which he fails to earn a C (2.0) average. He is removed from probation at the end of the semester in which his accumulative average is C.

Probation may also be assigned to students who fail to meet satisfactory standards of professional behavior. Unsatisfactory standards are represented by such behavior as: absence without leave, undue carelessness or negligence in studies or practice, inattention to the needs of patients, and falsification of records or reports. Students and parents are notified of probationary status.

Separation. A student is automatically separated from the Division when he fails to earn a C average in any two semesters or when his accumulative average is below C. If at any time a student fails to show aptitude for the field of study in which he is enrolled or to maintain a satisfactory standard of health or general performance, he may be asked to discontinue study in the curriculum.

Readmission. The program directors, acting as the Admissions Committee, consider petitions for readmission from students who have been separated. A student separated for the first time may petition the Committee immediately for readmission. Readmission may be granted if warranted by exceptional circumstances. A student separated for the second time may not be admitted for the next semester and may not petition for readmission until eight weeks after the beginning of the next regular semester. Once readmitted, a student remains on probation as long as his accumulative average is below C.

Student Responsibility. Application to and enrollment in the University constitute the student's commitment to honor and abide by the practices and regulations stated in the University's official announcements, bulletins, handbooks, and other published materials and to conduct himself in a manner that is mature and compatible with the University's function as an institution of higher learning.

Requirements for Graduation. The Bachelor of Science degree will be conferred by the Indiana University School of Medicine upon persons who have been regularly admitted by the Office of Admissions and met the following requirements: (1) the satisfactory completion of the core curriculum of the Division of Allied Health Sciences of the School of Medicine, (2) the completion of a minimum of 120 semester hours of academic work including the specific professional requirements for the program pursued, (3) a minimum accumulative average of C in academic work, and (4) completion of the last 30 semester hours of University work in residence at any Indiana University campus. The Associate in Science degree will be conferred on two-year graduates in Hospital Dietary Technology, Radiologic Technology, and Respiratory Therapy.

Degrees are granted in June and September. Seniors are responsible for checking with the Division Office during the first half of their last semester to confirm that all requirements have been met and that arrangements for the appropriate diplomas are correct. Commencement is held only in June. Candidates for degrees in September may participate in the June Commencement. Seniors (at all campuses) expecting to graduate shall be responsible for notifying Mrs. Miriam Rollins at the Bloomington Office, Room 203, Myers Hall, of this intention on or before January 1, prior to the spring commencement.

Ordinarily candidates for degrees from Indiana University should have taken all their professional work at Indiana University. Candidates for degrees with distinction (based on overall academic achievement) or honors (departmental recognition) will be judged only on the professional portion of their work or the last two years of the program, whichever is longer. Honors are not given for work at other institutions. Candidates for degrees are expected to receive grades of C or better in all professional and preprofessional courses.

Directory for the Division of Allied Health Sciences

GLENN W. IRWIN, JR., M.D., Dean, School of Medicine
LYNN ARBOGAST, M.D., Director, Division of Allied Health Sciences
R. MARTIN BRUNS, Assistant Director, Division of Allied Health Sciences
HAL HEFNER, Assistant to the Director, Division of Allied Health Sciences

DIVISION OFFICES

Bloomington	Miriam Rollins	337-9404
Indianapolis	Lynn Arbogast	264-8602

CURRICULA

Cytotechnology	Nancy Kortright, C.T.	264-7602
Medical Records	Mary Ann Lacy, R.R.L.	264-7317
Medical Technology	Mary Feeley, M.T.	264-7855
Occupational Therapy	Carol Nathan, O.T.R.	264-7119
Physical Therapy	Frances Ekstam, R.P.T.	264-8913
Graduate Program	Tali Conine, H.S.D., R.P.T.	264-8509
Public Health Dental Hygiene	Joan Catherman, D.H.	264-7801
Public Health Education	Samuel Hopper, Ph.D.	264-7189
Public Health-Environmental Health	Harold Adams, R.P.S.	264-7189
Public Health Administration	Samuel Hopper, Ph.D.	264-7189
Radiologic Technology	Sue Kehrein, R.T.	264-8767
Respiratory Therapy	Joseph Koss, I.T.	264-7311
Hospital Dietary Technology	Arlene Wilson, A.D.A.	264-8461

GRADUATE CURRICULUM COMMITTEE

Samuel Hopper, Chairman
Tali Conine
Mary Feeley
Carol Nathan

Programs in the Division of Allied Health Sciences

The letters preceding the number of each of the courses in the Division of Allied Health Sciences indicate the program. The letters used and their meanings are as follows:

- A HL A—Cytotechnology
- A HL B—Public Health Administration
- A HL C—Medical Technology
- A HL D—Public Health Dental Hygiene
- A HL E—Public Health Education
- A HL F—Respiratory Therapy
- A HL H—Public Health General Course
- A HL M—Medical Records
- A HL P—Physical Therapy
- A HL S—Public Health-Environmental Health
- A HL T—Occupational Therapy
- A HL W—Coordinated courses
- T—Hospital Dietary Technology, Medical Record Technology, Radiologic Technology, Occupational Therapy Technology

Required courses are listed for each program (see course listings on pages 43-54). The abbreviation "P" in the course descriptions refers to course prerequisites; "R" refers to requirements which are suggested as desirable prior to enrollment, but not necessary for enrollment.

Descriptions for courses taken at the Medical Center and for core and recommended elective courses are given on pages 43-64 of this *Bulletin*.

For additional information on these programs, write to: Program Director, (name of field or area of your interest), Division of Allied Health Sciences, IUPUI Medical Center, 1100 West Michigan Street, Indianapolis, Indiana 46202.

CYTOTECHNOLOGY

Professor Edwards (Director); Lecturer Kortright

Courses are chosen so that a minimum of 90 academic credit hours (exclusive of physical education and military science) is met before students may enter the fourth year at the IUPUI Medical Center. Near the end of the third year the student's accomplishments are reviewed and an evaluation is made of his probable success as a cytotechnologist. There is no guarantee of acceptance, and students should be prepared to elect an alternate program in the Division of Allied Health Sciences or the College of Arts and Sciences.

The fourth year is a calendar year spent in a combined tutorial-didactic experience in the cytology laboratory. Upon successful completion of the program a B.S. degree is conferred by the IUPUI School of Medicine, and the graduate is eligible to take the Cytotechnology Certifying Examination given by the Board of Registry of the American Society of Clinical Pathologists.

A two-year associate degree program is being developed.

First Year

<i>First Semester</i>	<i>Hours</i>	<i>Second Semester</i>	<i>Hours</i>
Elementary Composition W131 or W140	2	Business Communications C204	3
Zoology Z103	5	Chemistry C101 or C105†	5
Foreign Language*	5	Foreign Language*	5
Social Sciences Sequence	3	Social Sciences Sequence	3
Physical Education M130 or W100	2	Physical Education M130 or W100	1
Oriention to Allied Health Sciences			
A HL G100†	1		17
	17		

Second Year

Chemistry C102 or C106†	5	Anatomy-Physiology P230	5
Literature, Philosophy, and the Arts		Literature, Philosophy, and the Arts	
Sequence	3	Sequence	3
Electives§	7	Electives§	8
	15		16

Third Year

Botany B101	5	Zoology Z215	5
Microbiology M250, M255	5	Zoology Z364	4
Electives§	5	Electives§	6
	15		15

Fourth Year

(Medical Center)

General Medical Cytology A HL A402	3	Cytology of Sputum and Bronchial	
Gynecologic Cytology, Nonmalignant		Secretions A HL A432	3
Conditions A HL A412	3	Cytology of Body Fluids A HL A442	2
Gynecologic Cytology, Malignant		Cytology of Gastric Secretions, Urine, Spinal	
Conditions A HL A422	3	Fluid, and Other Secretions A HL A452 ..	2
Techniques in Medical Cytology A HL A462	2	Pathology C477	2
Medical Terminology A HL M330	3	Seminar in Cytology A HL A470	1
	14	Certification Internship A HL A465	6
			16

MEDICAL RECORDS

Associate Professor Ridley; Assistant Professors Lacy (Director), Schultheis; Instructors Ashton, Hefner, Miller; Lecturer Nolan

The medical record administrator, as director of a medical record department, is responsible for developing and maintaining a system of medical records to assist in patient care, provide training material for interns and residents, and serve as a source of information for medical research and clinical evaluation. As director, he/she is also called upon to assist the hospital staff with many medical administrative and medicolegal problems.

The medical records student learns to recognize the organizational structures of health facilities and organizational patterns of medical staffs as operational entities in which medical records systems are developed and operating.

There is an affiliation with Indianapolis hospitals during the second semester followed by a one-month affiliation which may be assigned outside Indianapolis.

The curriculum of the Medical Record Program is approved by the Council on Medical Education of the American Medical Association in collaboration with the Committee on Education and Registration of the American Medical Record Association.

* Recommended elective.

† Not required at campuses other than Bloomington.

‡ Chemistry C101-C102 are terminal courses. Chemistry C105-C106 qualify for chemistry majors.

§ Recommended electives: Zoology Z366; Chemistry C341, C343; Mathematics M015 or M017.

After graduation the student is eligible to take the registration examination of the American Medical Record Association which certifies him/her as a Registered Record Librarian (R.R.L.).

Acceptance of an applicant over 35 years of age is subject to review by the Director of the Medical Record Program.

First Year			
<i>First Semester</i>	Hours	<i>Second Semester</i>	Hours
Elementary Composition W131 or W140	2	Business Communications C204	3
Chemistry C100	5	Zoology Z103	5
Literature, Philosophy, and the Arts		Social Sciences Sequence	3
Sequence	3	Literature, Philosophy, and the Arts	
Social Sciences Sequence	3	Sequence	3
Physical Education M130 or W100	1	Physical Education M130 or W100	1
Speech S121 or S130	2	Classics C209*	2
Oriention to Allied Health Sciences			
A HL G100*	1		17
	17		

Students with less than three years of high school mathematics should check with their counselor to determine if they may need to substitute a mathematics course.

Proficiency in typing will be tested before the beginning of the senior year. Tests will be offered each semester.

Second Year			
Psychology P101	3	Psychology P102	3
Office Management C300	2	Office Management C403	3
Speech S223 or S229	3	Elementary Logic P150 or Elementary	
Electives†	7-8	Ethics P140	3
	15-16	Electives†	7-8
			16-17

Third Year			
Office Systems and Control C404	3	Topographical Anatomy A463	3
Mammalian Anatomy and Physiology P230 ...	4	Statistical Techniques K300	3
with Functional Lab. P231	1	Manpower Resources & Development J440 ...	3
Finite Mathematics M118	3	Electives†	6-7
Organizational Behavior and			15-16
Leadership Z301	3		
The Computer in Business K201	1		
Electives†	1		
	16		

Fourth Year			
(Medical Center)			
Statistics A HL H304†	2	Medicine and the Law A HL M445	2
Medical Record Science I A HL M411	5	Clinical Lectures III A HL W472	2
Directed Practice Experience I A HL M441 ...	4	Pathology C477	2
Medical Terminology A HL M330	3	Medical Record Science II A HL M412	5
Clinical Lectures I A HL W374	3	Directed Practice Experience II A HL M442 ...	6
Hospital Organization and			
Management A HL M322	2		17
	19		

MEDICAL RECORD TECHNOLOGY

A Medical Record Technician program, leading to the associate degree is being planned for the Northwest campus and the East Chicago campus of the Division of General and Technical Studies. Initially the professional work will be centered in

* Not required at campuses other than Bloomington.

† Recommended electives include: Business B413, C205, F260, L200; Education R523, R543; Philosophy P100; Forensic Studies P101, P371; Psychology P234, P324; courses in language of choice.

‡ Not required of students who have had Mathematics K300.

St. Margaret's Hospital at Hammond. As enrollment increases, other hospitals in the area plan to participate. Prospective students should contact Dr. Robert Corrigan, East Chicago Campus, telephone 397-2050 or the Medical Records Department of St. Margaret's hospital. Part-time students may enroll for the second semester of 1970-71.

MEDICAL TECHNOLOGY

Professors Biggs, Minton, Nordschow (Director), Smith, Summers; Associate Professors Griep, Moorehead; Assistant Professors Benz, Bonderman, Hicks, Jung, Oei, Proksch; Instructors Dritsas, Feeley (Coordinator), Friedman, Hocker, Lee, Lehman, Young; Lecturers Cain, Mallette

Medical technology is a rapidly growing profession associated with the latest advances in clinical laboratory medicine. The medical technologist performs laboratory tests that reveal the presence of abnormalities of the blood or body tissues by using chemical analyzers, electronic cell counters, as well as other types of sophisticated laboratory equipment. The first three years of the medical technology curriculum are designed to provide a broadly based background in chemistry and the biological sciences, as well as opportunity to elect courses from the humanities. The fourth calendar year is spent in a combined tutorial-didactic experience in a clinical laboratory. After graduation students are eligible to apply for examination for certification by the Board of Registry of the American Society of Clinical Pathologists.

Curricula outlined in this *Bulletin* include the premedical technology program offered on the Bloomington, IUPUI, and regional campuses; at the Medical Center hospital-approved school; and at the hospital schools affiliated with the regional campuses.

Graduates of this program will find opportunities available in hospitals, clinics, research, industry, or physicians' offices. There is opportunity for specialization, advancement, and graduate study.

A B.S. degree program is also available at Indiana University Southeast. See the *Bulletin* of that campus for further information.

In recognition of the need for individuals with graduate education in medical technology, a Master of Science degree program, with several options available, is offered.

First Year

First Semester	Hours	Second Semester	Hours
Elementary Composition W131 or W140	2	Business Communications C204	
Physical Education M130 or W100	1	or Speech S121	3-2
Zoology Z103	5	Physical Education M130 or W100	1
Social Sciences Sequence	3	Chemistry C105†	5
French F101 or German G101*	5	Social Sciences Sequence	3
Orientation to Allied Health Sciences		French F102 or German G102*	5
A HL G100†	1		
	17		16-17

Second Year

Chemistry C106	5	Chemistry C341	3
Literature, Philosophy, and the Arts		Chemistry C343	2
Sequence	3	Literature, Philosophy, and the Arts	
Microbiology M250	3	Sequence	3
Microbiology M255	2	Physiology P230	5
Classics C209†	2	Electives‡	3
	15		16

* Recommended elective. Others include: Chemistry S342; Microbiology M430; Zoology Z215, Z466.

† Not required at campuses other than Bloomington.

‡ P: two years of high school algebra, or one and one-half years of high school algebra and M017, or one year of high school algebra and M015; C101 not accepted.

§ A course in college mathematics and physics is a requirement for certification from the Board of Registry for Medical Technologists.

Third Year

Microbiology M440	3	Chemistry C313	3
Microbiology M445	2	Electives	12
Zoology Z364*	4		—
Electives	6		15
	15		

Fourth Year

The courses given in the fourth year consist of a rotating internship in the clinical laboratories of the hospitals. The student gains practical experience which is supplemented by lectures, demonstrations, and library assignments. The clinical year comprises a full 52 weeks of which two are reserved for vacation. The total time in classroom and laboratory work is 2,000 clock hours for which at least 34 academic hours are earned. Upon satisfactory completion of this year, students are eligible to take the Registry examination of the American Society of Clinical Pathologists.

Given below is a typical fourth-year program. Because individual students rotate among the above courses, the sequence may vary. There may also be some variation among the affiliated hospitals, whose names and faculty listings follow the typical program.

<i>First Semester</i>	<i>Hours</i>	<i>Second Semester</i>	<i>Hours</i>
Clinical Chemistry A HL C406	6	Serology A HL C409	2
Hematology A HL C407	6	Bacteriology A HL C411	6
Blood Banking A HL C408	4	Parasitology J420	2
Urinalysis A HL C410	2	Physiological Chemistry A HL C479	4
Topics in Medical Technology A HL C412	2		14
	20		

BEECH GROVE

St. Francis Hospital

Assistant Professors Buehl, Costin (Director); Instructors Robertsen, Thornton (Education Coordinator); Lectures Bragdon, Charnley, Clarke, Hanna, Lea, E. Robertson, Trinkle, Utke

FORT WAYNE

Lutheran Hospital

Assistant Professors Aldred, Aust, Griest (Director); Teaching Supervisor Hanaver

Parkview Memorial Hospital

Assistant Professors Frankhouser, Ransburg, Schlademan (Director); Lecturers Borcherdig, Schwartz, Wilson (Teaching Supervisor)

St. Joseph's Hospital

Assistant Professors Pan, Schneider (Director); Lecturers Amstutz, Brooks, Rumschlag (Teaching Supervisor)

GARY

Methodist Hospital

Pathologists Custodio, Han (Associate Director), Loh (Director); Instructors Sohaney (Teaching Coordinator); Lecturers Berndt, Chamberlain, Johnson, Luttinen, Marshal, McBride, Starkey

St. Mary Mercy Hospital

Pathologists Cabrera, Mason (Director); Assistants Blastick, Caplis, Edge, Snyder, Swierczewski; Lecturers Demitroulas, Liber, Martin Triana

* Recommended elective. Others include: Chemistry S342; Microbiology M430; Zoology Z215, Z466.

INDIANAPOLIS

Medical Center and Marion County General Hospital

Professors Biggs, Minton, Nordschow (Director), Smith, Summers; Associate Professors Griep, Moorehead; Assistant Professors Benz, Bonderman, Hicks, Jung, Oei, Proksch; Instructors Dritsas, Feeley, Friedman, Hocker, Lee, Lehman, Young; Lecturers Cain, Mallette

Methodist Hospital

Pathologists Evans, Hoyt (Director), Hurteau, MacKenzie, Pontius, Schulz, Smith; Instructors Clapp, Clemons, Driver (Teaching Supervisor), Ertel, Finch, German, Greenland, Hart, Hazelrigg, Kitts, Niles, Perkins, Salyers, Schlender, Stelle, Tripp; Lecturers Bhatti, Reiser, Slifer

St. Vincent's Hospital

Doctors Card, Eisele, Foster (Director), Muller, O'Brien, Sullivan; Instructors Ahern, Carter, Hessong, Hill, Leonard, Miller, Peters, Stanley, Sutherland, White (Education Coordinator)

KOKOMO

Howard Community Hospital

St. Joseph Memorial Hospital

Doctors Harshman, Rudicel (Co-Directors); Technologists Fields, Harlow, Parker, Selley, Wall, Warnock, Wolfe

SOUTH BEND

South Bend Medical Foundation, Inc.

Assistant Professors Bennett (Director), Buslee, Fawcett, Galup, Goderski, Pascuzzi, Sisson; Instructors Bahler, Hagan (Education Coordinator), Hathway, Kozak, Low, Reed, Straup, Wilson, Winstead; Lecturers Ackart, Berndt, Byers, Futterknecht, Goodhew, A. Heet, D. Heet, Kolaskinski, Lust, Markey, Moswinski, Wendland

Master's Degree Program for Medical Technologists

To be admitted, the student must meet the general requirements as outlined in the *Bulletin* of the Graduate Division of the School of Education and be certified as M.T. (ASCP). The degree offered is the Master of Science in Education with a major in audio-visual communications and medical technology. Information regarding this program can be obtained from Mrs. Cherryl Friedman, 213 Fesler Hall, IUPUI Medical Center, 1100 West Michigan Street, Indianapolis, Indiana 46202.

Other options in the Graduate School include: biochemistry, microbiology, toxicology and medical genetics. For further information, see the Graduate School *Bulletin*.

Requirements

Hours

Education R523	Utilization of Audio-Visual Materials	3
Education R543	Preparation of Inexpensive Instructional Materials	2
Education R546	Survey of Audio-Visual Communications	3
Education R590	Practicum in Medical Technology Teaching Skills	1-4

Recommended

Education P503	Introduction to Research	3
Education P507	Educational Measurement	3
Education P510	Psychology in Teaching	3
Education S518	Advanced Study in the Teaching of Secondary School Sciences	3
Education T501	Introduction to Scientific Inquiry	3
Education T525	Physical Therapy Curriculum Development	3

From the recommended courses below 12 to 15 semester hours are required. Other professional group electives may be chosen with consent of adviser.

Medicine B800 General Biochemistry for Medical Students	4
Medicine Q620 Mammalian Cytogenetics	3
Microbiology J604 Microbiology for Medical Students	4
Toxicology F812 Methods in Toxicology	cr. arr.

The residence requirement is two semesters on the Medical Center campus. The minimum number of semester hours for the nonthesis program is 36.

OCCUPATIONAL THERAPY

Assistant Professors Nathan (Director), Simek, Wright; Instructors Bradley, Farber, Nie, Weeks; Lecturers Embach, Fess, Griswold, Grummon, Hamant, Linzie, McConnell, Nail, Riekena, Slominski, Swan, Verderber, Wissing, Yoder

"Occupational therapy is the art and science of directing man's response to selected activity to promote and maintain health, to prevent disability, to evaluate behavior and to treat or train patients with physical or psychological dysfunction."

Occupational therapy is a health profession which contributes to the physical and emotional independence and well-being of an individual through the use of selected activity. The occupational therapist evaluates each individual to determine the current level of functioning. As a member of the treatment team, he works in collaboration with the physician, with physical and speech therapists, nurses, psychologists, social workers, vocational counselors, and other specialists to plan a therapeutic activity program.

Occupational therapists work in general and special hospitals, psychiatric clinics, rehabilitation centers, military hospitals, community health centers, nursing homes, special schools, home care programs, and sheltered workshops and as faculty in colleges and universities. The therapist works with people who have individual problems, that is, children and adults with physical, emotional, social, and educational deficits who need specialized evaluation and possible treatment for stimulating mind and muscle to function at the fullest capacity. Occupational therapy may be indicated for neurological impairment, emotional illness, physical injuries, perceptual deficits, birth defects, mental retardation, heart disease, and problems of aging.

Graduates of the degree program are eligible for the examination leading to admission to the Registry of Occupational Therapists maintained by the American Occupational Therapy Association. This examination is held throughout the country in January and June of each year. Admission to the Registry is the certification of a therapist to practice.

The curriculum in the Occupational Therapy program is approved and accredited by the American Occupational Therapy Association and the American Medical Association.

First Year			
First Semester	Hours	Second Semester	Hours
Elementary Composition W131 or W140	2	Speech S121	2
Psychology P101	3	Psychology P102	3
Sociology S161	3	Sociology S163 or S232	3
Electives	4	Introduction to Occupational Therapy	
Physical Education M130 or W100	1	A HL T203*	2
Literature, Philosophy, and the Arts		Physical Education M130 or W100	1
Sequence	3	Electives	2
Orientation to Allied Health Sciences		Literature, Philosophy, and the Arts	
A HL G100*	1	Sequence	3
	17		16

* Not required at campuses other than Bloomington.

Second Year

Psychology P324	3	Chemistry C100 or C101	5
Zoology Z103	5	Speech S229	3
Classics C209*	2	Electives	7
Electives	5		15
	13		

Third Year
(Medical Center)

Anatomy D323	5	Physiology F305	5
Applied Neuroanatomy A HL W324	2	Kinesiology A HL W376	3
Human Behavior A HL T323	2	Occupational Therapy Theory and Practice I A HL T360	6
Therapeutic Techniques I A HL T351	5	Pathology C477	2
Human Growth and Development A HL T382	2	Therapeutic Techniques II A HL T352	2
Practicum A HL T324	1		18
	17		

Fourth Year
(Medical Center)

Occupational Therapy Theory and Practice II A HL T460	6	Affiliation A HL T495	5
Clinical Lectures I A HL W374	3	(three-month internship)	
Clinical Lectures II A HL W471	3	Affiliation A HL T496	5
Current Professional and Administrative Concepts A HL T301	3	(three-month internship)	
Psychopathology N303	2		10
	17		

OCCUPATIONAL THERAPY TECHNOLOGY

Graduates of approved high schools are eligible for admission to this two-year course in health service. The occupational therapy assistant is a technically qualified person to aid in the treatment programs of persons under the supervision of a registered occupational therapist. The assistant accepts clinic responsibilities in hospitals, nursing homes, day-care centers, rehabilitation centers, or those organizations directed to maintain health and socialization of its members.

Upon completion of the program a student receives the degree Associate of Science in Occupational Therapy Technology from the Division of General and Technical Studies of Indiana University and is eligible to become a Certified Occupational Therapy Assistant in the American Occupational Therapy Association.

Application for this training program should be filed with the Occupational Therapy Program, Division of Allied Health Sciences, Indiana University - Purdue University at Indianapolis, Medical Center, Indianapolis, Indiana. Classes begin each September with a limited number of students.

Inquiries relating to this program should be addressed to Mrs. Frank Simek, Associate Degree Program, Coordinator, Occupational Therapy, Indiana University - Purdue University at Indianapolis, Medical Center, 1232 West Michigan Street, Indianapolis, Indiana 46202.

First Year

First Semester

Hours

English W131	2
Sociology S161	3
Psychology P101	3
Medical Terminology TAHS T100	1
Introduction to Design FA S101	2
Introduction to Occupational Therapy TOIT T100	2
Electives	3
	16

Second Semester

Hours

Speech S121	2
Sociology S232-S163	3
Psychology P102	3
Anatomy A210	5
Crafts and Design FA S255	2
Seminar	0
	15

* Not required at campuses other than Bloomington.

Summer

Practicum in Occupational Therapy (4 weeks) TOTT P201 4

Second Year*First Semester*

Abnormal Psychology P324	3
Clinical Physical Conditions TOTT C101	4
O.T. Techniques I TOTT T201	5
Clinical Practice TOTT P200	2
Electives	2
	16

Second Semester

Psychology P316-P319	3
Clinical Psycho-Social Conditions TOTT C102	4
O.T. Techniques II TOTT T202	2
Recreation Leadership HPER R180	2
Clinic Management TOTT W101	2
Electives	3
	16

PHYSICAL THERAPY

Professor Ekstam (Director); Associate Professors Conine (Coordinator Graduate Program), Mitchell; Assistant Professors Magee, Wilson, Young; Instructor Duffer, Laude, Morrow; Lecturers Beckman, Hagar, Hoyermann, Koehneke, Love

Physical therapy is one of the allied health professions providing comprehensive health care. It is directed toward prevention of disease and disability and toward restoration of function to disabled individuals. Those objectives are accomplished through the use of evaluative procedures, therapeutic exercise, physical agents, and assistive devices.

A physical therapist administers treatment upon referral by a physician; participates in education, teaching, and research activities; and provides consultative service. Physical therapy service is utilized in hospitals, outpatient treatment facilities, industrial clinics, governmental and voluntary health agencies, public school systems, and nursing homes.

The legal practice of physical therapy in Indiana is regulated by the Indiana State Board of Medical Registration and Examination. Success in the state examination entitles the candidate to a physical therapist license, enabling him to practice in Indiana or in those states endorsing the Indiana license.

The number of admissions each year is necessarily limited. A student transferring from an Indiana University campus receives priority over one transferring directly from another college or university, provided eligibility requirements are comparable.

Clinical education during the summer session and final semester of the professional curriculum occurs in facilities in Indiana and nearby states. The cost of traveling to affiliating agencies is assumed by the student.

The curriculum in the Physical Therapy program is accredited by the American Medical Association in collaboration with the American Physical Therapy Association.

First Year

<i>First Semester</i>	<i>Hours</i>	<i>Second Semester</i>	<i>Hours</i>
Elementary Composition W131 or W140	2	Psychology P102	3
Chemistry C101	5	Chemistry C102	5
Psychology P100	3	Physical Education M130 or W100	1
Physical Education M130 or W100	1	Literature, Philosophy, and the Arts Sequence	3
Literature, Philosophy, and the Arts Sequence	3	Electives	4
Electives	2		16
Orientation to Allied Health Sciences A HIL G100*	1		
	17		

Second Year

Zoology Z103	5	Business Communications C204	3
Sociology S161	3	Zoology Z215	5
Classics C209*	2	Sociology S163 or S232	3
Physics P100	5	Introduction to Physical Therapy A HIL P204*	2
	15	Electives	3
			16

* Not required at campuses other than Bloomington.

Third Year (Medical Center)

Anatomy D323	5	Physiology F305	5
Kinesiology A HL W376	3	Applied Neuroanatomy A HL W324	3
Child Development A HL W373	3	Therapeutic Exercise II A HL P481	3
Therapeutic Exercise I A HL P384	2	Physical Tests and Measurements A HL P382	3
Physical Agents I A HL P461	2	Pathology C477	2
Preclinical Subjects A HL P370	2	Public Health Z413	2
	17		18

Summer Session (8 weeks)

Clinical Education I A HL P491	2
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Fourth Year (Medical Center)

Applied Neurophysiology A HL P483	3	Clinical Education II A HL P492	8
Clinical Lectures I A HL W374	3		
Clinical Lectures II A HL W471	3		
Physical Agents II A HL P462	3		
Social-Psychological Aspects of Physical Disability A HL W312	2		
Psychopathology N303	2		
Applied Physical Therapy A HL P485	2		
	18		

Physical Therapy courses in the 300 and 400 series in Indianapolis are open only to students enrolled in the Physical Therapy program; a minimum accumulative grade average of C+ (2.5) is required for enrollment.

Master's Degree Program in Physical Therapy Education

This program has been established in response to an increasing demand for qualified physical therapy educators. Its primary aim is to prepare physical therapists for teaching in an academic or clinical setting. The curriculum is administered jointly by the Schools of Education and Medicine and leads to the degree Master of Science in Education. It is planned to insure flexibility and a variety of educational experiences in an environment conducive to independent thinking and productive inquiry. The program is not designed to fill gaps in undergraduate education, but it does provide the opportunity for advanced learning and in-depth study in the major fields and areas cognate to physical therapy.

To be admitted the applicant must meet the general requirements of the Graduate Division of the School of Education. He also must hold either a baccalaureate degree with a major in physical therapy or a certificate in physical therapy from a program approved by the American Medical Association and the American Physical Therapy Association. A minimum accumulative average of C+ (2.5) or above in all undergraduate work is required.

General Requirements

1. Unconditional admission to graduate study.
2. Completion of a minimum of 36 semester hours without a thesis, or 30 hours with a thesis, in graduate courses taken within six calendar years.
3. Full-time residency on the Medical Center campus for one semester.

Course Requirements

	Hours
Education P503 Introduction to Research*	3
One course each selected in History and Philosophy of Education*	6
Education T501 Introduction to Scientific Inquiry	3
Education T525 Physical Therapy Curriculum Development	3

* See the *Bulletin* of the Graduate Division of the School of Education.

	Hours
Education T590 Research in Physical Therapy*	3
Education T695 Practicum in Physical Therapy Education	3
Education T780 Seminar in Physical Therapy	3
A minimum of 9 semester hours selected with the approval of the departmental adviser in graduate courses outside of the field of education, preferably in administration, basic medical sciences, biomechanics, counseling, psychology, or sociology	9
Sufficient additional hours in graduate courses inside or outside of education.	

PUBLIC HEALTH DENTAL HYGIENE

(Department of Preventive Medicine)

Chancellor Hine; Dean McDonald; Research Professor Phillips; Professors Boyd, Hopper, Raidt, Shafer, Shanks, Standish, Starkey, Swartz, Swenson, Van Huysen; Associate Professors Adams, Norman, Ping; Assistant Professors Carr, Catherman (Director, Dental Hygiene Program), Gish, Matlock, Tomich; Instructors Brittain, DeFranz, Smith, Stout, Totten; Lecturers Bland, Jones, McLelland

The dental hygienist is a member of the health team concerned with the prevention of diseases of the mouth. The dental hygienist studies a professional college program which entitles a graduate, after successfully passing a state board examination, to perform specific treatments for children and adults, to take and process dental X rays, to assume duties in the dental office, and/or to participate as a health worker in federal, state, or local public health and educational programs.

Indiana University offers a program which leads to the degree Associate in Science in Dental Hygiene and a program which leads to the degree Bachelor of Science in Public Health Dental Hygiene. While the associate degree program is adequate to prepare the dental hygienist to perform the tasks which may be assigned in a private dental office, additional knowledge and skills are necessary for positions involving the responsibilities of education and administration. Because of increasing interest among dental hygienists for these opportunities, a degree program is offered by the Division of Allied Health Sciences of the School of Medicine.

The first or freshman year may be taken at any college or university, but courses must be comparable to those offered by Indiana University in order to transfer for credit. The second and third or the sophomore and junior years must be taken in the School of Dentistry, IUPUI, or at Indiana University at Fort Wayne or South Bend. The fourth or senior year must be taken in the Division of Allied Health Sciences of the School of Medicine in Indianapolis. An alternate degree course with a fourth year in the School of Education is offered at Fort Wayne and South Bend.

Indiana University at Fort Wayne and South Bend offer, in addition, a one-year course for dental assistants. See the Fort Wayne and South Bend *Bulletins* for details.

First Year

First Semester	Hours	Second Semester	Hours
Elementary Composition W131 or W140	2	Business Communications C204	3
Political Science Y103 or History H105	3	Political Science Y105 or History H106	3
Literature, Philosophy, and the Arts Sequence	3	Literature, Philosophy, and the Arts Sequence	3
Speech and Theatre S121	2	Sociology S161	3
Physical Education M130 or W100	1	Physical Education M130 or W100	1
Chemistry C101	5	Electives	3
Orientation to Allied Health Sciences			
A HL G100†	1		
	17		16

* Required for master's degree without a thesis.

† Not required at campuses other than Bloomington.

Second Year (Medical Center)

Human Biology I D HYG H212	4	Human Biology II D HYG H213	4
Dental Anatomy D HYG H214	3	Pharmacology and Therapeutics D HYG H215	2
Chemistry and Nutrition D HYG H216	3	Psychology P101	3
Dental Prophylaxis Techniques D HYG H218	3	Microbiology for Dental Hygienists J207	4
Sociology S163	3	Clinical Practice D HYG H219	4
	16		17

Summer Session

Clinical Dental Hygiene Procedures D HYG H221	1
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Third Year (Medical Center)

Radiology D HYG H303	2	Radiology Laboratory D HYG H303	1
Dental Materials D HYG H308	2	Technical Writing D HYG H310	2
Psychology P102	3	Public Health Education Methods A HL E443	3
Clinical Practice I D HYG H301	5	Practice of Community Dental Hygiene D HYG H309	2
Preventive Dentistry D HYG H217	1	First Aid HPER H160	1
Dental Health Education D HYG H311	2	Clinical Practice II D HYG H302	5
Oral Pathology D HYG H304	2	Principles of Environmental Health A HL S321	3
	17		17

Fourth Year (Medical Center)

Statistics A HL H304	2	Public Health Practice D HYG G999†	3
School Health Education A HL E440	3	Public Health Field Practice A HL D465	3
Community Health Education A HL E442	3	Speech Pathology A HL D403	2
Clinical Supervision A HL D401*	2	Community Dental Hygiene A HL D405	5
Psychology P324	3	Electives	3
Speech S223	3		16
	16		

PUBLIC HEALTH EDUCATION

(Not offered 1971-72)

(Department of Preventive Medicine)

**Professor Hopper (Director); Associate Professor Adams; Instructors Brittain, Yoho;
Lecturers Bland, Jones, McLelland**

The health educator's major aim is to help people understand their health needs and how to meet these needs as individuals and as members of a group, family, community, or nation. The health educator helps people to think critically and to make intelligent choices in their health behavior. He must be well grounded in the biological and social sciences, since he will be explaining and interpreting the latest developments in the health sciences and will be motivating people to use them.

In recent years, there has been an expansion of health education activities in schools, in public health departments, in voluntary health agencies, and in industrial and commercial companies. The emphasis upon health education is expected to continue, and the number of personnel needed will greatly increase.

For the health education teacher in a secondary school, it is advisable to become certified in health education and in a second subject such as physical education, science, or social science.

* Admission by permission of the Director of Dental Hygiene, School of Dentistry.

† Offered in the School of Dentistry.

There are opportunities to become a health education consultant or specialist in a state or city department of health, in the U.S. Department of Health, Education and Welfare, or in some professional organization such as the American Medical Association or American Dental Association.

Voluntary health organizations at the local, state, and national levels, such as tuberculosis, cancer, polio, heart, and crippled children's societies, need trained health educators in their programs.

Actual field practice is a requirement for completion of the program. Ten semester hours of credit are required in the latter part of the second semester of the senior year and consist of supervised practical experience with state and local departments of public health.

First Year

<i>First Semester</i>	<i>Hours</i>	<i>Second Semester</i>	<i>Hours</i>
Elementary Composition W131 or W140	2	Business Communications C204	3
Chemistry C100	5	Zoology Z103	5
Literature, Philosophy, and the Arts Sequence	3	Literature, Philosophy, and the Arts Sequence	3
Physical Education M130 or W100	1	Physical Education M130 or W100	1
Electives	4	Electives	4
Orientation to Allied Health Sciences A HL G100*	1		16
	16		

Second Year

Psychology P101	3	Psychology P102	3
Sociology S161	3	Sociology S260	3
Anthropology A103	3	Speech S223	3
Speech S121	2	Journalism C200	3
Electives	4	Home Economics H231	2
	15		14

Third Year

Microbiology M250	3	Human Biology P130	4
Microbiology M255	2	Political Science Y308	3
Political Science Y103	3	Psychology P234	3
Anthropology A104 or A304	3	Radio and Television R204*	3
Sociology S309	3	Electives	4
	14		17

Fourth Year (Medical Center)

Public Health Organization and Administration A HL H301	3	Public Health Education Methods A HL E443 ..	3
Statistics A HL H304	2	Speech Pathology A HL D403	2
Environmental Health A HL S321	3	Public Health Field Practice A HL E465	10
Epidemiology and Occupational Health A HL S408	2		15
School Health Education A HL E440	3		
Community Health Education A HL E442	3		
	16		

PUBLIC HEALTH-ENVIRONMENTAL HEALTH (Department of Preventive Medicine)

Professor Hopper; Associate Professors Adams (Director), Brown, Summers; Assistant Professor Spolyar; Instructor Brittain; Lecturers Fassnacht, Fisher, Hert, Jump, Keppler, McCowen

* Not required at campuses other than Bloomington.

Environmental health is a branch of the biological sciences dealing directly with the health aspects of man's physical surroundings. Its purpose is twofold: (1) the control of conditions under which man lives so that hazards leading to disease and injury can be eliminated; (2) the teaching of hygiene and the principles of sanitation to the general public and to others whose activities deal with water, food, air pollution, community wastes, housing, and urban development. Laws and regulations also are involved as they pertain to improvement of community health protection.

Within the last decade great new areas have opened up for the student and professional in environmental health—air pollution control, radiological health, water pollution control, housing, and food technology. Demands for research and employment in these fields now exceed the supply of trained personnel to carry on this work.

Upon graduation, students become eligible to take examinations as registered professional sanitarians under laws now in effect in Indiana and 32 other states. Graduates are also eligible to take federal, state, and local examinations for positions in governmental public health agencies. In addition, industry and commerce offer employment. Graduate training under federal scholarships is available. Employment opportunities are very good.

First Year

<i>First Semester</i>	<i>Hours</i>	<i>Second Semester</i>	<i>Hours</i>
Elementary Composition W131 or W140	2	Business Communications C204	3
Chemistry C101	5	Chemistry C102	5
Mathematics M015 or M017	5-3	Speech S121	2
Physical Education M130 or W100	1	Fine Arts A110†	3
Psychology P101	3	Political Science Y103†§	3
Orientation to Allied Health Sciences		Physical Education M130 or W100	1
A HL G100*	1		
	17-15		17

Second Year

Political Science Y307	3	Physics P100	5
Psychology P102	3	Anthropology A103 or A303†	3
Sociology S161†	3	Geography G107 or Geology G100†	5
Zoology Z103	5	Electives	3
Comparative Literature C225*	2		
	16		16

Third Year

Microbiology M250	3	Human Biology P130	4
Microbiology M255	2	Political Science Y308	3
Sociology S232 or S309	3	Speech S223	3
Anthropology A104 or A304	3	Botany B101 or Biology L350	3
First Aid HPER H160	2		
	13		13

Fourth Year (Medical Center)

Public Health Organization and Administration A HL H301	3	Parasitology and Entomology A HL S423	3
Statistics A HL H304	2	Public Health Education Methods A HL E443 ..	3
Environmental Health A HL S321	3	Public Health Field Practice A HL S465	10
Epidemiology and Occupational Health A HL S408	2		16
Food Technology and Control A HL S428	4		
Elements of Water and Sewage A HL S432	2		
	16		

* Not required at campuses other than Bloomington.

† Fulfills the Literature, Philosophy, and the Arts Sequence for this program.

‡ Fulfills the Social Science Sequence for this program.

§ Foreign students take Y300.

PUBLIC HEALTH ADMINISTRATION (Department of Preventive Medicine)

Professor Hopper (Director); Associate Professors Adams, Ridley; Assistant Professors Offutt, Smith, Spolyar; Instructor Yoho; Lecturers Bland, Darrell, Fisher, Hall; Staff from Indiana University School of Business; Advisory Council from Governmental and Voluntary Health, Hospital, Insurance, and Management Agencies

There is a challenging future for business-oriented personnel in medical administrative procedures. The concern for health, in its varied aspects, has expanded so rapidly that major policy issues involving budgets, insurance, law, and general management require trained people to assist the physician in these areas. Health departments at state, county, and city levels offer opportunities for administrative practice in the development of standards and in professional staff training and evaluation. In addition, voluntary health agencies have awakened the public to the tremendous demands for knowledge and action in health matters and offer attractive positions to those trained in management skills. Other fields include health and hospital insurance plans, county medical societies, nursing homes, and hospitals. Health is personal as well as public; it is dynamic and ranks high on the list of what might be called big business. For students who like to work with others, who want variety and challenge in their work, and who can make decisions, health administration is a field with a wide horizon and a bright future.

The Division of Allied Health Sciences in cooperation with the School of Business offers a course of study leading to the degree Bachelor of Science in Public Health with a major in health administration. Candidates for this degree must complete three years of preprofessional business courses on the Bloomington campus as outlined in the Basic Business and Economics Core of the School of Business including the Comprehensive Examination. The fourth year is spent at the Medical Center campus. The undergraduate Public Health Administration program will not be offered in 1971-72.

Interdisciplinary Program Leading to the Master of Health Administration Degree

The two-year academic program involves offerings by various schools of the University and by cooperating community health agencies. The Department of Preventive Medicine of the School of Medicine, the academic staffs of the University hospital administrations, and the Indiana University Graduate School of Business provide a curriculum which covers such fields as management techniques, computer technology, and systems analysis applied to the dynamics of health care.

Specific courses include those dealing with organizational and human behavior, administrative policy, mathematical business analysis, epidemiology, accounting, electronic data processing, statistical tools, community facilities planning, public welfare, and applied research, with special emphasis on problems in health care systems.

Course Descriptions

A HL Z502 Organizational Behavior and Human Performance (3 cr.)

Unified personnel program and its operation in business and other social institutions; functional processes of manpower planning and recruiting, selection decision-making, development, direction, motivation, and research; determinants of work behavior.

A HL W502 Administration (3 cr.)

Analysis of the interaction of the administrative process and the organization in attaining goals in various environments.

A HL W518 Administrative Policy (3 cr.)

Administration of the business firm from the point of view of top management, formulation and administration of policy, diagnosis of executive and organizational problems, development of long range plans and programs, evaluation of administrative strategy for the business corporation. Case studies, research reports, business games.

Electives in various aspects of computers and data processing are available for those who have a particular interest or need.

The finance sequence following deals with general principles of financial management in course number H816 and is followed by H817 which applies this knowledge in the health areas.

A HL H816 Financial Administration in Health Programs I (3 cr.)

Theory and application of financial management including the preparation and administration of budgets, cost analysis of departmental direct and indirect expenses, allocation of expenses to income factors, annual reports, interpretation of data to health groups, policies resulting from legislation.

A HL H817 Financial Administration in Health Programs II (3 cr.)

Theory and application of financial management including the preparation and administration of budgets, cost analysis of departmental direct and indirect expenses, allocation of expenses to income factors, annual reports, interpretation of data to health groups, policies resulting from legislation. Medicare, Medicaid, etc.

The sequence in public health, hospitals, health care systems, and community planning is as follows:

A HL G996 Epidemiology (3 cr.)

Principles and methods used in epidemiologic investigations. Review of communicable disease control with emphasis on etiologic factors, modes of transmission, and methods of control. Noninfectious pathogenic conditions, uses of statistical analysis, and group discussions. Case method of approach, with materials prepared by the NCDC.

A HL H810 Community Planning (Include Dynamics of Health Care Systems) (5 cr.)

The structure, delivery, and utilization of health services. Community groups and the facilities involved in health and systems, planning and programs. Current methods of financing and capitalization. The place of the hospital in health care, the importance of community organization and participation.

A HL H301 Public Health Administration (3 cr.)

Historical background; early development; objectives of public health; its structure at federal, state, and local levels; legal and financial aspects, organization, administration, program content; function of each professional category of personnel with emphasis on community understanding and cooperation.

A HL S543 Public Welfare I (3 cr.)

Analysis of legal and administrative structure, purposes, philosophy, and policies of income maintenance programs of public assistance and social insurance.

A HL H805 Current Events in Public Health (1 cr.) Elective

Local, state, and national problems currently of interest; community field work and meetings with voluntary health agencies where indicated. Legislative trends nationally and locally.

A HL H820 Computer Information Systems (3 cr.)

Fundamentals of information handling, design of information systems, selection and evaluation of data processing equipment, exercises in programming, operational factors, systems management, implementation of information systems.

A HL H812 Administrative Externship (4 months) (hours and credits to be arranged)

Supervised experience in a health area such as: state, county, or city boards of health, a voluntary health group, the Indiana Department of Mental Health, the Welfare Department, Blue Cross-Blue Shield, a group practice, a nursing home, insurance.

Executives and competent preceptors of community and industrial health groups, using the case method of approach, supplement basic didactic instruction.

Admission to the Program. 1) Only applicants who are qualified holders of the bachelor's degree from an accredited institution will be considered. 2) Applicants must submit a record of previous education. A 2.5 (4.0=A) undergraduate accumulative grade-point average is necessary as are three letters of recommendation. 3) Each applicant must arrange for a personal interview. 4) Applicants must have taken the Graduate Record Examination. 5) Applications should be received by June 1 of the year for which September admission is desired.

Degree Requirements. Each candidate is required to complete four semesters of full-time graduate study. A minimum of 48 hours must be completed. In order to continue in good standing and to qualify for graduation, each student is expected to achieve a grade point index of 2.75 (4.0=A) or higher in all work taken for graduate credit.

For additional information regarding this program, write to: Director, Graduate Program in Health Administration, Division of Allied Health Sciences, Indiana University Medical Center, Indianapolis, Indiana 46202.

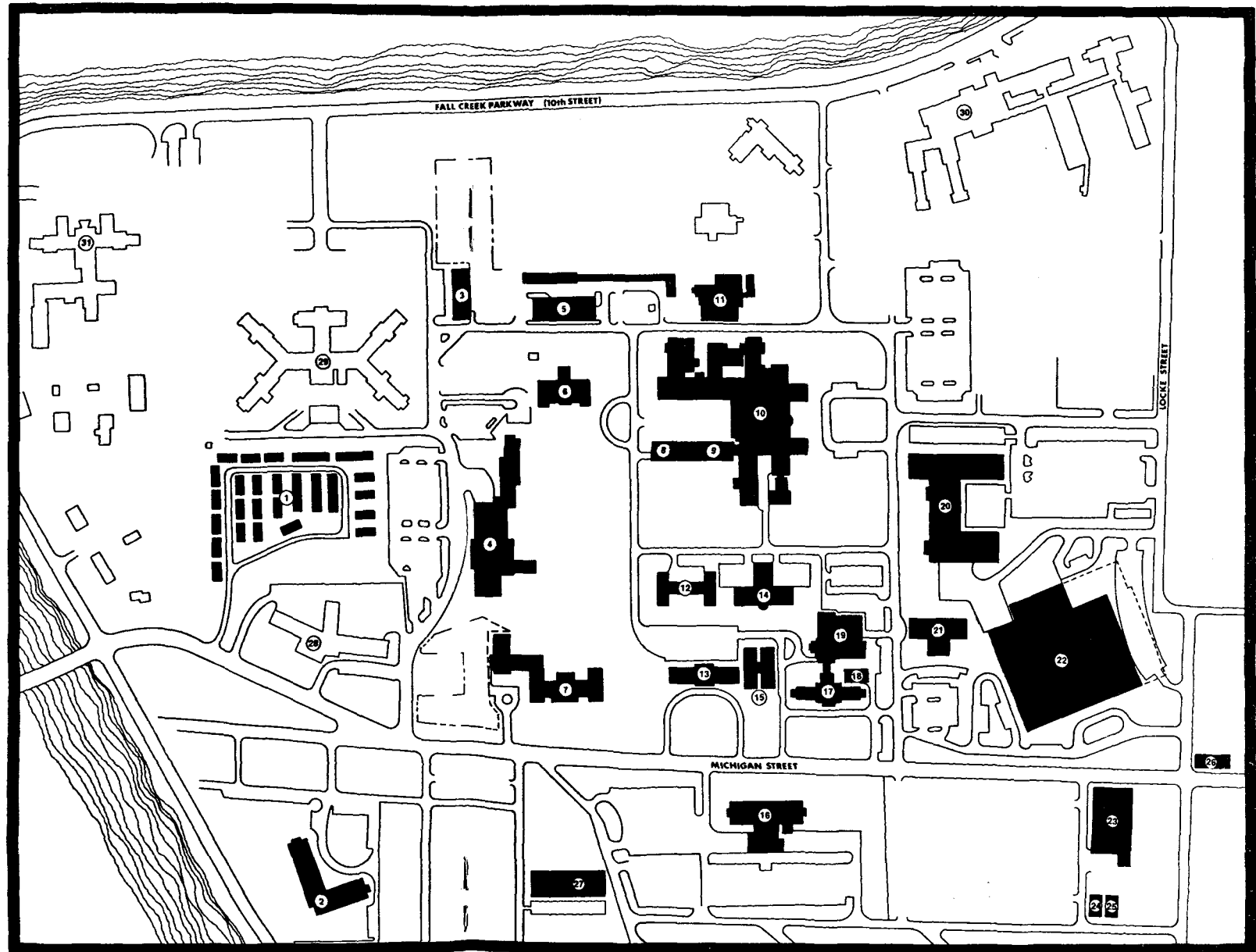


**Indiana University-
Purdue University
at Indianapolis
Medical Center**

- (12) Administration Building
- (7) Ball Residence
- (23) Bowers Building
- (8) Cancer Research Unit and
Laboratories of Riley Hospital
- (25) Campus Development
- (19) Clinical Building
- (15) Cottages
- (13) Coleman Hospital
- (16) Dental School
- (21) Emerson Hall
- (14) Fesler Hall
- (26) Hospital Accounting and Data Processing
- (3) Institute of Psychiatric Research
- (17) Long Hospital
- (18) Medical Records
- (20) Medical Science Building
- (11) Power Plant
- (27) Preventive Dentistry Research Building
- (10) Riley Hospital for Children
- (9) Riley Hospital Research Wing
- (6) Rotary Building
- (24) Safety Department
- (5) Service Building
- (4) Union Building (including single student dormitory)-
conference rooms, swimming pool, bookstore,
cafeteria and snack bar, barber and beauty shops
- (22) University Hospital
- (2) Warthin Apartments for married students—Housing
Office
- (1) Winona Village—student housing

Neighboring Institutions

- (28) Indiana State Board of Health
- (29) LaRue D. Carter Memorial Hospital
- (30) Marion County General Hospital
- (31) Veterans Administration Hospital



RADIOLOGIC TECHNOLOGY

Professors Campbell (Chairman), Helmen (Director), Loehr, Miller; Associate Professors Brahme, Hornback, Mishkin; Assistant Professors Cockerill, Franken, Leininger, Reese; Instructor Kehrein (Associate Director); Teaching Associates Baker, Dyson, Folkening, Herron, Hoover, Stites; Lecturers Foley, Moser

Graduates of approved high schools and college students who are interested in a career in an allied health sciences field are eligible to apply for training in Radiologic Technology.

Radiology is a science involving the medical use of X rays, radium, and radioactive isotopes in the diagnosis and treatment of disease. A radiologist is a physician specializing in this science, and a radiologic technologist is the technical assistant to the radiologist. Subspecialization in areas of nuclear medicine and radiation therapy is possible for the technologist.

The curriculum follows a pattern designed to train the technologist to become adept in the performance of any technical medical radiologic procedure. Courses in radiological principles, technological procedures, clinical application of theory, and general education are included in the curriculum.

Upon successful completion of the program, a student receives the degree Associate of Science in Radiologic Technology from the Division of General and Technical Studies of Indiana University and is eligible to take the Registry examination of the American Registry of Radiologic Technologists to become certified as a Registered Radiologic Technologist (R.T.). Employment opportunities are excellent.

Applications for this program should be filed with Dr. Charles H. Helmen, Department of Radiology, IUPUI Medical Center, 1100 West Michigan Street, Indianapolis, Indiana 46202 before June 1, as they are processed in the order in which they are received and each class is limited in number. New courses begin each September. Students are selected on the basis of their previous educational qualifications and a personal interview.

First Year (Medical Center)

<i>First Semester</i>	<i>Hours</i>	<i>Second Semester</i>	<i>Hours</i>
Anatomy and Physiology TAP A100	3	Clinical Practice I TAHS X100	12
Medical Terminology TAHS T100	1	Psychology P101	3
Specialized Equipment TAHS E200	1	Elementary Composition W131 or W140	2
Darkroom Chemistry TCHM C100	1		17
Office Procedure TAHS N100	1		
Radiation Physics TPHY P200	2		
Nursing Procedures TAHS N101	1		
Basic Roentgenographic Technique			
TAHS R101	3		
Principles of Radiology TAHS R102	3		
History and Ethics THIS H100	1		
	17		

Summer Session

Clinical Practice II TAHS X101	2
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Second Year

<i>First Semester</i>		<i>Second Semester</i>	
Pathology TAHS M200	2	Formulating Technique TAHS F200	3
Clinical Practice III TAHS X200	10	Principles of Radiology (Lab) TAHS R103	1
Sociology S161	3	Advanced Radiographic Technique	
Speech S121	2	TAHS R201	3
	17	Principles of Radiology II TAHS R202	3
		Radioactive Isotope Procedures TPHY P201	2
		Radiation Therapy TPHY P202	2
		Sociology S163	3

each major 17

Summer Session

Comprehensive Experience TAHS X201 2

Associate Degree Program for Radiologic Technologists

Associate degree programs in Radiologic Technology leading to the A.S. degree are offered at the following campuses of Indiana University. Interested persons may obtain further information from the directors listed for each hospital.

INDIANA UNIVERSITY AT FORT WAYNE

Lutheran Hospital: Robert A. Flaherty, M.D.

Parkview Hospital: Richard C. Datzman; M.D.

St. Joseph's Hospital: Melvin J. Powell, M.D.

INDIANA UNIVERSITY NORTHWEST (GARY)

Methodist Hospital: K. G. Ambrozaitis, M.D.

KOKOMO

Howard Community Hospital

St. Joseph Memorial Hospital

Doctors Golper (Director), Sekulich; Technologists Carner, Miller

MICHIGAN CITY

St. Anthony Hospital

Memorial Hospital

Walters Hospital

LaPorte Hospital, Inc.

Doctors Backer, Bremer, Plank, Scott, Zalac; Technologists Bowers, Harder, Hudson, Lingenfelter, Slabaugh, Troyer

SOUTH BEND

Memorial Hospital

Elkhart General Hospital

Doctors Bixler, Chamberlain, Lionberger, Olson, Parshall, Tirman (Director), Wind; Technologists Baker, Borrego, Buckles, Defauw, Fozzo, Horvath, Konecny, Kubley, Long, McLouchlin, Peczkowski, Scott, Seedoft, Smith, Swoveland, Toth, Yoder

Bachelor's Degree Program for Radiologic Technologists

The objective of the degree program is to provide competent instructors in radiologic technology and highly trained technical personnel to perform many functions currently the sole responsibility of the radiologist. The student must complete the Radiologic Technology core with a grade-point average of 3.0 or better to be eligible for selection for the bachelor's degree program. Further information may be obtained from the Director of the Radiologic Technology Program, IUPUI Medical Center, 1100 West Michigan Street, Indianapolis, Indiana 46202.

Basic Requirements (not included in the associate degree program)	Hours
Mathematics M015 or M017	5-3
Physical Education W100	2
Literature, Philosophy, and the Arts Sequence	6
Education F100	2
Chemistry C100 or C101	5
Electives	10-12

Major Requirements—Diagnostic Roentgenology

Hospital Organization and Management A HL M322	2
Radiographic Correlation I A HL R405	cr. arr.
Statistics A HL H304	2
Radiographic Correlation II A HL R406	cr. arr.

Major Requirements—Radiation Therapy

Hospital Organization and Management A HL M322	2
Radiobiology A HL R450	2
Tumor Localization Technique A HL R455	5
Physical Principles of Radiation Physics A HL R460	2
Principles of Dosimetry A HL R465	2
Statistics A HL H304	2
Research in Radiobiology A HL R451	4
Radiation Statistics Study A HL R470	4
Clinical Application in Radiation Therapy A HL R475	5

Major Requirements—Nuclear Medicine

Hospital Organization and Management A HL M322	2
Mathematics and Statistics in Nuclear Medicine A HL R410	2
Nuclear Radiation Physics A HL R415	3
Measure of Radiation in Nuclear Medicine A HL R420	3
Clinical Application in Nuclear Medicine I A HL R445	5
Advanced Radioactive Isotope Procedures A HL R425	2
Special Radioactive Isotope Procedures A HL R430	8
Records and Administrative Procedures A HL R435	1
Clinical Application in Nuclear Medicine A HL R446	5

RESPIRATORY THERAPY

Assistant Professor LoSasso (Director); Assistant Professor Koss (Co-Director)

Guest Lecturers: Baker, Brasher, Burns, Cuculic, Cummings, Daly, Dunn, Feeley, Goodrich, Hamilton, Johnson, Jolly, Knoehnede, Manfredi, Manion, Martinez, Matthews, McCutchan, McDonald, Meiks, J. Miller, M. Miller, Need, Pamintuan, Roesch, Smith, Wilcox, Winters, Wyse, Yahnke

Respiratory therapy employs a variety of techniques and procedures in assisting patients to return to their normal heart-lung physiology.

The graduate of this program is qualified to administer all phases of respiratory therapy, including oxygen, mixed gases, and aerosol therapy; positive-pressure breathing treatments; continuous short-term and long-term ventilation therapy; cardio-pulmonary resuscitation; and pulmonary rehabilitation.

Students are also instructed in blood gas analysis, monitoring of lung volumes, pulmonary function studies, and chest physiotherapy.

Technical knowledge of equipment and procedures, along with a basic understanding of the sciences and disease processes, affords the respiratory (inhalation) therapist technician the opportunity to function as an integral part of the health-care team and to meet the needs of individual patients. Additional instruction is provided in the area of departmental organization, administration, and ethics.

The program is approved by The Joint Review Committee for Inhalation Therapy Education, Council on Medical Education of the American Medical Association. Enrollment is limited, and applications for entering the program at the Medical Center should be submitted to the Division of Allied Health Sciences by February of the year the applicant desires entrance into the summer session.

Graduates of this program are eligible to take the examination given by the American Registry of Inhalation Therapists and upon passing become Registered Inhalation Therapists (A.R.I.T.).

First Year

<i>First Semester</i>	<i>Hours</i>	<i>Second Semester</i>	<i>Hours</i>
Elementary Composition W131 or W140	2	Business Communications C204 or	
Physics P100	5	Speech S121	2
Human Biology P130*	4	Chemistry C101	5
Literature, Philosophy, and the Arts		Anatomy and Physiology P230*	5
Sequence	3	Literature, Philosophy, and the Arts	
Physical Education W100†	1	Sequence	3
Orientation to Allied Health Sciences		Physical Education W100†	1
A HL G100†	1		
	16		16

Summer Session
(Medical Center—10 weeks)

Respiratory Therapy I A HL F201 8

NOTE: Uniforms are required for the summer session and must be furnished by the student.

Second Year
(Medical Center)

Microbiology B218 (or M250, M255)	5	Psychology P101	3
Clinical Lecture I W374	3	Respiratory Therapy III A HL F202-F203	4
Social Sciences Sequence	3	Nursing B216	3
Respiratory Therapy II A HL F202	4	Pathology C477	2
	15	Social Sciences Sequence	3
			15

HOSPITAL DIETARY TECHNOLOGY

Professor Irwin; Associate Professor Wilson (Director); Assistant Professors Abel, Boucher, Hart, McLees, Van Ness; Instructors Harris, Lifsey

Graduates of approved high schools are eligible for admission to this two-year course. A dietary technician assists a professional dietitian in caring for the nutritional needs of individuals and groups. The program is planned with special emphasis on hospital food service, and graduates of the program are eligible for membership in the Hospital, Institution, and Educational Food Service Society.

Applications for this training program should be filed with the Department of Dietetics at the IUPUI Medical Center, Indianapolis. Classes begin each semester with a limited number of students. Students satisfactorily completing the course receive the Associate in Science degree from the Division of General and Technical Studies of Indiana University.

Inquiries relating to this program should be addressed to Miss Arlene Wilson, Department of Dietetics, IUPUI Medical Center, 1100 West Michigan Street, Indianapolis, Indiana 46202.

First Year

<i>First Semester</i>	<i>Hours</i>	<i>Second Semester</i>	<i>Hours</i>
Grammar and Vocabulary I TENG W101	2	Principles of Written Expression TENG W102	2
Principles of Applied Mathematics		Food Purchasing THDT P100	3
TMAT B101	3	Cost Control-Accounting for Dietetics	
Chemistry for Dietetics TCHM D101	5	THDT A101	3
Meal Management THDT W101	3	Sanitation and Safety THDT S101	2
Social Systems in Society TSOC S101	3	Development of Oral Communications	
	16	TCOM C101	2
		Foods I THDT F101	3
			15

* Anatomy A210 (5 cr.) and Physiology P204 (5 cr.) may be substituted for Human Biology P130 (4 cr.) and Anatomy and Physiology P230 (5 cr.)

† Not required at campuses other than Bloomington.

Second Year

Quantity Food Production I THDT P101	3	Quantity Food Production II THDT P102	3
Foods II THDT F102	3	Methods of Adult Education TED M101	3
Bacteriology for Dietetics THDT B101	3	Diet Therapy THDT N102	3
Personnel Management THDT J101	3	Institution Equipment THDT P103	2
Nutrition THDT N101	3	Supervisory Techniques THDT J102	3
—	—	Psychology in an Acquisitive Society	—
15	—	TPSY P101	3
			17

VOCATIONAL EDUCATION

The School of Education in Bloomington offers the degree Master of Science in Education with a major concentration in vocational education, designed primarily to prepare professional personnel for vocational-technical education. Such personnel typically seek teaching, supervisory, or administrative positions in secondary and post-secondary institutions or state departments of vocational-technical education. The master's degree curriculum is flexible and may be tailored to individual career objectives. Courses may be selected from one or more of the vocational disciplines and/or the general field of vocational education. Degree candidates are encouraged to complete the major portion of course work in their area of specialization.

Basic Requirements (9-12 hours)

Hours

Education P503 Introduction to Research, <i>or</i>	3
Education P501 Statistical Method Applied to Education <i>and</i>	
Education P507 Educational Measurement	6

One course selected from:

Education P510 Psychology in Teaching	3
Education P515 Behavior and Development of the Elementary School Child	3
Education P516 Adolescent Behavior and Development	3
Education P525 Advanced Educational Psychology	3
Education P540 Learning and Cognition in Education	3

One course selected from:

Education H503 History of Education in Western Civilization	3
Education H504 Historical Foundations of American Education	3
Education H520 Education and Social Issues	3
Education H530 Philosophy of Education	3
Education H538 Reflective Thinking	3
Education H600 Concepts and Arguments in Education	3

Major Requirements

Education V521 Principles and Organization of Vocational Education	3
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At least one course from:

Education V522 Administration and Supervision of Vocational Education	3
Education V524 Part-time and Cooperative Education	2
Education V525 Problems in Vocational Education	2
Education V590 Research in Vocational Education	arr.

A minimum of 6 graduate semester hours of professional education courses selected from one or more of the vocational education disciplines which include distributive, agricultural, trade and industrial, business, home economics, and health occupations education.

A minimum of 9 semester hours of graduate-level, technical-content courses. (If professional certification in Indiana is desired, the student must select 9 hours in each of the areas in which he wishes certification.)

Sufficient additional courses from such related fields as school administration, guidance, educational psychology, educational media, or other educational fields that will facilitate the individual's attainment of his occupational objective.

Courses Offered, 1971-72

SCHOOL OF MEDICINE COURSES

(enrollment limited to students in Allied Health Sciences)

Anatomy D323 Anatomy (5 cr.)

Gross human anatomy for physical and occupational therapy students. Predissected material utilized. Enrollment limited to students in Allied Health Sciences.

Microbiology J207 Microbiology for Dental Hygienists (4 cr.)

Principles and applications of microbiology for dental hygienists. Enrollment limited to students in Allied Health Sciences.

Microbiology J420 Parasitology for Medical Technologists (2 cr.)

Required for medical technologists; laboratory procedures and identification of the larger parasites of man. Enrollment limited to students in Allied Health Sciences.

Pathology C477 Pathology (2 cr.)

Lectures on principles of pathology; study of various diseased body tissues. Enrollment limited to students in Allied Health Sciences.

Physiology F305 Human Physiology (5 cr.)

For physical and occupational therapy students. Animal and human physiology; neuromuscular system, respiration, circulation, digestion, metabolism, excretion, and endocrines. Laboratory work concerned with exercises and demonstrations on neurophysiology and the physiology of muscular activity. Enrollment limited to students in Allied Health Sciences.

Psychiatry N303 Psychopathology (2 cr.)

Emotional stress and the resultant defense mechanisms; organic brain syndromes, schizophrenic reactions, and psychoneurotic disorders. Lecture and case presentations. Enrollment limited to students in Allied Health Sciences.

Psychiatry N306 Clinical Psychopathology (1 cr.)

Clinical aspects of deviant behavior through discussions, films, case studies, and hospital visits. Enrollment limited to students in Allied Health Sciences.

DIVISION OF ALLIED HEALTH SCIENCES COURSES

(open enrollment)

A HL G100 Orientation to Allied Health Sciences

A HL W312 Social-Psychological Aspects of Physical Disability (2 cr.)

Lectures and discussion concerning the social and psychological components associated with physical disability and their implications for patient treatment.

A HL W324 Applied Neuroanatomy (Section I, 2 cr.; Section II, 3 cr.)

P: Anatomy D323. Emphasis on structure and gross function of nervous system as a basis for clinical neurology.

A HL W373 Child Development (3 cr.)

Physical, mental, social, and emotional development of children from birth through adolescence; emphasis on development of normal children, although problems of handicapped children will be considered.

A HL W374 Clinical Lectures I (3 cr.)

Lectures in medicine, surgery, and pediatrics.

A HL W376 Kinesiology (3 cr.)

Analysis and synthesis of human motion.

A HL W471 Clinical Lectures II (3 cr.)

P: A HL D323, A HL W324, A HL C477. Lectures and clinical presentation in orthopedics and neurology.

A HL W742 Clinical Lectures III (2 cr.)

Lectures and clinical presentations in dietetics, geriatrics, obstetrics, gynecology, urology, otolaryngology, dermatology, ophthalmology, public health problems, and other pertinent specialties.

Courses in most sections arranged alphabetically by prefix letter.

Cytotechnology

A HL A402 General Medical Cytology (3 cr.)

Basic features of cellular morphology, cellular physiology, and cytogenetics, as related to medical cytology; cancer cells presented through lecture, laboratory study demonstrations.

A HL A412 Gynecologic Cytology, Nonmalignant Conditions (3 cr.)

Cell types encountered in normal individuals; cyclic variations; changes in hormonal dysfunction, inflammatory changes.

A HL A422 Gynecologic Cytology, Malignant Conditions (3 cr.)

Study of cancer cells of different types and arising in several sites. Course enables student to recognize sources and type of lesion from appearance of exfoliated cells.

A HL A432 Cytology of Sputum and Bronchial Secretions (3 cr.)

Systematic study of normal, nonmalignant, and malignant cells in lower respiratory system.

A HL A442 Cytology of Body Fluids (2 cr.)

Study of cells in effusions associated with nonmalignant and malignant diseases.

A HL A452 Cytology of Gastric Secretions, Urine, Spinal Fluid, and Other Secretions (2 cr.)

Review of cells, malignant and nonmalignant, encountered in these sites.

A HL A462 Technics in Medical Cytology (2 cr.)

Fixation and staining procedures, preparation of smears, and cell blocks from fluids and other exfoliates; use of millipore filter technic and fluorescence microscopy.

A HL A465 Certification Internship (6 cr.)

Includes six months of internship required by the Registry. Students gain further practical experience by working with routine cytology material. Conferences and research papers are used to provide additional experience.

A HL A470 Seminar in Cytology (cr. arr.)

Review of current literature pertaining to diagnostic cytology. Reports and discussions by students and faculty.

Public Health Administration

A HL B401 Introduction to Hospital Administration I (3 cr.)

General orientation to hospital departments, hospital organization, board of trustees, medical staff, administration, concept of management in a public service enterprise.

A HL B402 Introduction to Hospital Administration II (3 cr.)

Role of hospital in community, hospital goals and programs, coordination of hospital departments, managerial evaluation and improvement, relationships to official and voluntary health agencies.

A HL B411-B412 Nursing Home Administration I and II (3-3 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.

A HL B421 Management in Health Organizations I (3 cr.)

Analysis of major policy issues in management of health organizations; establishment of need as basis for proposal and budget; setting of standards; development of programs.

A HL B422 Management in Health Organizations II (3 cr.)

Executive and professional staff responsibilities and development; evaluation and utilization of quantitative data collected for management; internal communications and control; emphasis on decision-making process in evaluation and reappraisal.

A HL B465 Field Practice (10 cr.)

Supervised field training of nine weeks in administrative practice in voluntary or official health-related agency; student participates in various phases of health administration at the management level.

Medical Technology

A HL C400 Laboratory Practice (Introductory) (1 cr.)

Meetings at intervals, during the early period of training; study of laboratory procedures. Includes technical procedures and orientation. (For continuation, see C480.)

A HL C401 General Externship I (2 cr.)

Experience in a type hospital with opportunity for independent work. Emphasis on contact with patients.

A HL C402 General Externship II (2 cr.)

P: C401. Further experience in a type hospital; opportunity for independent work.

A HL C403 General Externship III (2 cr.)

P: C401, C402. Further experience in a type hospital; opportunity for independent work.

A HL C405 Medical Laboratory Records (1/2 cr.)

Required by Registry. Proper procedure of reporting laboratory results; method of distribution throughout various phases of work; experience in office, filing, statistical work.

A HL C406 Clinical Chemistry (6 cr.)

Training and experience in clinical chemistry including micro and macro procedures, radioisotopes, instrumentation, and steroid and hormone analysis.

A HL C407 Hematology (6 cr.)

Experience in the collection, staining, and counting of blood cells, platelets, and reticulocytes. Experience gained in the study of cellular content of other body fluids. Techniques of sedimentation rates, hematocrits, corpuscular indices and hemoglobin determination. Instruction in use and maintenance of special instrumentation such as electronic cellcounters. Coagulation studies and bone-marrow preparations.

A HL C408 Blood Banking (4 cr.)

Review of serologic principles and technical fundamentals of transfusion practice; comprehensive consideration of blood groups and Rh factors; extensive practice with pre-transfusion techniques and safety practices. Other blood types, antigen-antibody relationships and techniques for demonstrating them. Also includes practice in blood donor room procedures. Elementary knowledge of genetics is helpful.

A HL C409 Serology (2 cr.)

Flocculation and complement fixation tests for syphilis, both qualitative and quantitative. Preparation of antigens, colloidal gold tests, heterophile antibody tests, and C-reactive protein. Lectures and work in the laboratory and informal discussions. Experimental procedures are also used.

A HL C410 Urine Analysis (2 cr.)

Routine urine examination and special tests; laboratory and special lectures.

A HL C411 Bacteriology (6 cr.)

Diagnostic procedures as aids to diagnosis of human diseases and methods for isolation and identification of microorganisms. Also a study of the fungi which infect humans, with emphasis on isolation and identification.

A HL C412 Topics in Medical Technology (2 cr.)

Surgical pathology, basal metabolism rates, and electrocardiograms will be covered by lecture and clinical experience. Also included will be observations in related areas such as pharmaceutical chemistry and heart research.

A HL C413 Clinical Correlation and Theory (2 cr.)

Lectures in physiological chemistry, immunology, and other related subjects combined with demonstrations and ward rounds to emphasize the relationship between laboratory tests and disease states.

A HL C414 Honors Course in Medical Technology (cr. arr.)

Each student is to complete a research paper which will require library and laboratory work. The student will be assigned to a faculty adviser in the area in which she/he does the research.

A HL C420 Parasitology for Medical Technologists (2 cr.)

Required for medical technologists; laboratory procedures and identification of the larger parasites of man. This course taught at the regional campuses is "equivalent" to J420 as taught in Indianapolis at the Medical Center by the School of Medicine, Department of Microbiology.

A HL 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.

A HL C432 Hematology II (2 cr.)

P: C431. C432 and C434 offer more experience (than C431 allows) in the same techniques and additional techniques such as sedimentation rate, hematocrit, and the figuring of indices.

A HL C434 Hematology III (2 cr.)

P: C431, C432. Continuation of practice and experience in hematologic techniques. Individual projects assigned if student is sufficiently advanced.

A HL 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.

A HL 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.

A HL C442 Bacteriology III (2 cr.)

P: C440, C441. Student should be able to handle usual and somewhat unusual hospital bacteriologic and mycologic problems independently.

A HL C450 Serology I (2 cr.)

Flocculation and complement fixation tests of serologic tests for syphilis; familiarity with Mazzini, Kline, V.D.R.L., and Kolmer complement fixation tests; emphasis on reading tests; lectures and demonstrations, including the cardiolipin antigen and methods for distinguishing false positives.

A HL 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 technique to diagnostic procedures.

AH C460 Surgical Pathology I (2 cr.)

Actual experience with surgical specimens removed from patients in the various hospitals; stresses rapid completion of histologic slides for microscopic examination.

A HL C461 Surgical Pathology II (2 cr.)

P: C460. Additional practice in preparation of histologic slides for microscopic examination. In addition to the hexmatoxylin and eosin stain, a limited number of special techniques are required, including experience with frozen sections.

A HL C471 Clinical Chemistry I (2 cr.)

Training and experience with more frequently used chemistry tests, e.g., determination of sugar and urea nitrogen; automated and manual methods.

A HL C472 Clinical Chemistry II (2 cr.)

P: C471. Limited experience with less frequent special procedures.

A HL C473 Clinical Chemistry III (2 cr.)

P: C471 and C472. Special equipment utilization; preparation and maintenance of stock and solutions.

A HL C474 Radioisotopes I (1 cr.)

Information and techniques applicable to use of radioactive materials in clinical laboratory.

A HL C475 Radioisotopes II (2 cr.)

P: C474. Extended experience and practice with radioactive materials under special supervision. Enrollment must be arranged by conference with faculty.

A HL C476 Chemistry IV (2 cr.)

P: C471, C472. Advanced procedures, method developments, special projects.

A HL C477 Chemistry V (2 cr.)

P: C471, C472. Training and experience in special micro procedures, technical and methodological.

A HL C478 Instrumentation (cr. arr.)

Theory and practice with electronics as applied to instrumentation and clinical chemistry. Credit variable on basis of 1 credit hour per each 60 clock hours.

A HL C479 Physiological Chemistry for Senior Medical Technologists (4 cr.)

P: 15 hours in chemistry, one semester of calculus, or consent of instructor. Introduction to carbohydrate, amino-acid, and lipid metabolism. Basic endocrinology: enzymes, biosynthesis of steroid hormones.

A HL C480 Clinical Laboratory Diagnosis (1 cr.)

P: C400. Continuation of material in C400. Ethics, relations with patients, techniques and interpretation of results, special equipment, maintenance of various types of equipment and supplies; miscellaneous subjects.

A HL C483 Specialty Externship I (2 cr.)

Special practice in affiliated institutions, for students with proficiency in required subspecialties. Provides individual electives for special interests.

A HL C484 Specialty Externship II (2 cr.)

Special practice in affiliated institutions, for students with proficiency in required subspecialties. Provides individual electives for special interests.

A HL C485 Specialty Externship III (2 cr.)

Special practice in affiliated institutions, for students with proficiency in required subspecialties. Provides individualized electives for special interests.

A HL C489 Basal Metabolic Techniques (½ cr.)

Special theory and techniques. Actual experience with various machines. Successful tracings required.

A HL C490 Electrocardiographic Technique (½ cr.)

Lectures on theory and procedures; actual experience with apparatus; successful electrocardiograms required.

A HL 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 pre-transfusion techniques and safety practices. Other blood types, antigen-antibody relationships with techniques for demonstrating them. Elementary knowledge of genetics is helpful.

A HL C492 Blood Bank II (2 cr.)

P: proficiency in 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 on the student.

A HL 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.

Public Health Dental Hygiene

Students in this program should see the *Bulletin* of the School of Dentistry for a description of second- and third-year courses.

***A HL D401 Clinical Supervision (2 cr.)**

Supervisory experience in clinics and laboratories involved in teaching students enrolled in Dental Hygiene curriculum; problems incident to patient-student and instructor-student relationships.

A HL D403 Speech Pathology (2 cr.)

Orientation to speech pathology; emphasis on dental-related problems.

A HL D405 Community Dental Hygiene (5 cr.)

Describes organization and administration of various types of programs of the Dental Health Division of Indiana State Board of Health.

A HL D465 Public Health Field Practice (3 cr.)

Supervised field training consisting of five-week assignment with an official health agency, permitting the student to observe and participate in all phases of public health.

†DENT G999 Public Health Practice (3 cr.)

Functions, scope, and historical background of public health; organization of official and voluntary public health agencies with emphasis on their dental health programs.

Public Health Education**A HL E440 School Health Education (3 cr.)**

The school health movement, involving the development, present-day policies, programs and problems; health services, environmental factors, communicable disease control, health instruction, and hygiene of the school day.

A HL E442 Community Health Education (3 cr.)

Intensive study of social, psychological, economic, and cultural factors influencing successful application of the health sciences; relationship between different public health disciplines and agencies and techniques employed.

A HL E443 Public Health Education Methods (3 cr.)

Usual techniques of group work with investigations of social and psychological factors which determine effectiveness in promoting public health. Laboratory time provides opportunity for competence in group work and in design and use of promotional materials.

A HL E465 Public Health Field Practice (10 cr.)

Supervised field training is done on full-time basis for nine weeks in selected official and voluntary health agencies. Students assist in planning and conducting health education activities.

Respiratory Therapy**A HL F201 Respiratory Therapy I (8 cr.) (460 clock hrs.)**

Lecture and demonstrations in various procedures and techniques; objectives of respiratory therapy. Organization and function of a respiratory therapy department, care of equipment, ethics, and experience in patient treatment in which respiratory therapy techniques are applied.

A HL F202 Respiratory Therapy II (4 cr.) (270 clock hrs.)

P: F201. Advanced experience in patient treatment supervised by registered inhalation therapists in facilities affiliated with educational program. Includes positive pressure treatments, continuous ventilators and blood gas analysis.

A HL F203 Respiratory Therapy III (4 cr.) (270 clock hrs.)

P: F202. Advanced experience in patient treatment supervised by registered inhalation therapists in facilities affiliated with educational program. Includes pulmonary function studies and administration.

Public Health General**A HL G996 Epidemiology (3 cr.)**

Principles and methods used in epidemiologic investigations. Review of communicable disease control with emphasis on etiologic factors, modes of transmission and methods of control. Non-infectious pathogenic conditions, uses of statistical analysis, and group discussions. Case method of approach, with materials prepared by the NCDC.

* Admission by permission of the Director of Dental Hygiene, School of Dentistry.

† Offered in the School of Dentistry.

A HL H301 Public Health Organization and Administration (3 cr.)

Historical background, early development, objectives of public health; its structure at federal, state, and local level; legal and financial aspects, organization, administration, program content; function of each professional category of personnel with emphasis on community understanding and cooperation.

A HL H304 Statistics (2 cr.)

Collection, tabulation, and elementary analysis of data; measures of central tendency, of variability, tests of significance, sampling procedures; prepares student to draw justified conclusion from numerical data.

A HL H490 Research (cr. arr.)

For advanced students only. Supervised research problems in field of public health.

A HL H805 Current Events in Public Health (1 cr.) Elective

Local, state, and national problems currently of interest; community field work and meetings with voluntary health agencies where indicated. Legislative trends nationally and locally.

A HL H810 Community Planning (Include Dynamics of Health Care Systems) (5 cr.)

The structure, delivery, and utilization of health services. Community groups and the facilities involved in health and systems, planning and programs. Current methods of financing and capitalization. The place of the hospital in health care, the importance of community organization and participation.

A HL H812 Administrative Externship (4 months) (hours and credits to be arranged)

Supervised experience in a health area such as: State, county, or city boards of health, a voluntary health group, the Indiana Department of Mental Health, the Welfare Department, Blue Cross-Blue Shield, a group practice, a nursing home, insurance.

A HL H816 Financial Administration in Health Programs I (3 cr.)

Theory and application of financial management including the preparation and administration of budgets, cost analysis of departmental direct and indirect expenses, allocation of expenses to income factors, annual reports, interpretation of data to health groups, policies resulting from legislation.

A HL H817 Financial Administration in Health Programs II (3 cr.)

Theory and application of financial management including the preparation and administration of budgets, costs analysis of departmental direct and indirect expenses, allocation of expenses to income factors, annual reports, interpretation of data to health groups, policies resulting from legislation. Medicare, Medicaid, etc.

A HL H820 Computer Information Systems (3 cr.)

Fundamentals of information handling, design of information systems, selection and evaluation of data processing equipment, exercises in programming, operational factors, systems management, implementation of information systems.

Medical Records

A HL M322 Hospital Organization and Management (2 cr.)

Orientation to hospital departments; hospital organization; inter- and intra-relationships of hospital and community agencies.

A HL M330 Medical Terminology (3 cr.) (2 lectures—2 lab. hrs.)

Understanding and use of medical-profession vocabulary; emphasis on speaking, reading, and writing skills.

A HL M411 Medical Record Science I (5 cr.)

History, content, form, numbering, filing, securing, preserving, coding, and indexing medical records; hospital medical library and statistics; the professional medical record librarian and her relationship to the health facility, the medical staff, and committees.

A HL M412 Medical Record Science II (5 cr.)

Principles and practices of medical record department administration in the hospital and in specialized health-care facilities.

A HL M441 Directed Practice Experience I (4 cr.)

Supervised practice of medical record department procedures in an organized laboratory; guest lectures, films, and on-site observations and tours.

A HL M442 Directed Practice Experience II (6 cr.)

Rotation and project assignments in medical record departments in Indianapolis area health facilities. Final month is spent in an affiliation in a medical record department in or out of Indianapolis.

A HL M445 Medicine and the Law (2 cr.)

Presentation of concepts of law in medical and/or health-related area as applied to the physician, the hospital, health institutions, the medical record, and the individual health worker.

Physical Therapy

- A HL P204 Introduction to Physical Therapy (2 cr.)**
Introduction to the physical therapy profession; history of physical therapy, education requirements, role of the physical therapist, and employment opportunities. Open to all students (Bloomington campus).
- A HL P370 Preclinical Subjects (2 cr.)**
Lectures, discussions, laboratory in hospital routine and nursing procedures applicable to physical therapy. Instruction and certification in American Red Cross; standard first aid courses.
- A HL P382 Tests and Measurements (Physical) (3 cr.)**
Methods and devices used in measuring and testing in physical therapy. Lecture and laboratory.
- A HL P384 Therapeutic Exercise I (2 cr.)**
Application of treatment techniques for specific disabilities, including practical application of various types of apparatus. Lecture and laboratory.
- A HL P461 Physical Agents I (2 cr.)**
Principles and procedures in the application of heat, cold, water, light, and massage for therapeutic purposes. Lecture and laboratory.
- A HL P462 Physical Agents II (3 cr.)**
Instruction and practice in electrical testing and application of electrotherapy procedures. Lecture and laboratory.
- A HL P478 History, Administration, and Professional Relationships (2 cr.)**
Historical background, organization and administration of agencies related to physical therapy, and professional relationships with allied medical services.
- A HL P481 Therapeutic Exercise II (3 cr.)**
Principles and procedures in ambulation, activities of daily living, use of prosthetic and orthotic devices. Lecture and laboratory.
- A HL P483 Applied Neurophysiology (3 cr.)**
P: Physiology F305. Emphasis on neurophysiological concepts for developing treatment procedures in physical therapy; introduction to neuromuscular facilitation procedures. Lecture and laboratory.
- A HL P485 Applied Physical Therapy (2 cr.)**
Administration, ethical conduct, legislation, medicolegal considerations, and clinical problems related to physical therapy.
- A HL P491 Clinical Education I (2 cr.)**
Introductory experience in patient treatment supervised by registered physical therapists in facilities affiliated with the educational program.
- A HL P492 Clinical Education II (8 cr.)**
Advanced experience in patient treatment supervised by registered physical therapists in facilities affiliated with the educational program.
- ED T501 Introduction to Scientific Inquiry (3 cr.)**
Analysis and interpretation of data, introduction to theory of advanced statistical techniques, and principles of research design appropriate to clinical setting.
- ED T507 Evaluation in Physical Therapy Education (3 cr.)**
Principles of construction and interpretation of written achievement tests and other evaluative procedures applied to physical therapy education in an academic, laboratory, and clinical setting. Project applying the principles involved is required.
- ED T525 Physical Therapy Curriculum Development (3 cr.)**
Principles of curriculum construction. Content, materials, and methods of instruction in physical therapy curriculum. Educational implications of various levels of preparation in physical therapy.
- ED T561 Physical Therapy in Community Health (3 cr.)**
Introduction to public health and functions of voluntary and official health agencies. Personal and community health needs and trends influencing education, practice, and future developments in physical therapy.
- ED T590 Research in Physical Therapy (cr. arr.)**
Individual research in physical therapy or in a related field. Research may be of an educational, laboratory, or clinical nature.
- ED T594 Management Procedures in Physical Therapy (3 cr.)**
Techniques of office management, management of funds, accounting, records and reports, and purchasing applied to physical therapy services. Principles of effective organization, supervision, and administration.
- ED T599 Master's Thesis in Physical Therapy (3 cr.)**
Individual investigation in the form of an organized scientific contribution or a comprehensive analysis in a specified area related to the profession of physical therapy.
- ED T650 Readings in Physical Therapy (3 cr.)**
Selected readings in physical therapy.

ED T695 Practicum in Physical Therapy Education (3 cr.)

Relating educational theory to practice, through supervised teaching experience in the physical therapy curriculum. Emphasis is placed upon planning, structuring, and evaluating learning experiences. Participation in conferences with faculty on physical therapy.

ED T780 Seminar in Physical Therapy (3 cr.)

Individual and group study focusing upon research relevant to physical therapy. Critique of research problems and methodology, with correlation and integration of knowledge to develop theoretical bases to guide treatment.

Public Health-Environmental Health**A HL S321 Principles of Environmental Health (3 cr.)**

Objectives of environmental health control; water supplies, sewage systems, solid waste handling, air hygiene, food and milk sanitation, housing; radiological health, and legal and administrative phases; laboratory periods in sanitary chemistry and bacteriology.

A HL S408 Epidemiology and Occupational Health (2 cr.)

Cause, mode of transmission, and methods of prevention in control of common communicable diseases; methods of modern preventive medicine; industrial and occupational health hazards involving protective devices and measures for employee protection.

A HL S423 Parasitology and Entomology (3 cr.)

Survey of parasites and insects of public health importance affecting man; laboratory exercises in identification of insects; study of control measures and use of modern insecticides; rodents as disease vectors.

A HL S428 Food Technology and Control (4 cr.)

Food and dairy technology, food and dairy processing methods; field trips to processing plants for observation; legal definitions of various products; control techniques.

A HL S432 Elements of Water and Sewage (2 cr.)

Basic principles of water supply; epidemiology of water, including interpretation of laboratory examinations; sewage disposal studies including private installations; use of large facilities for sewage treatment at schools, institutions, and housing developments; solid waste disposal systems.

A HL S465 Public Health Field Practice (10 cr.)

Supervised field-training of nine weeks with local health department or Indiana State Board of Health; variety of health problems studied.

A HL S543 Public Welfare I (3 cr.)

Analysis of legal and administrative structure, purposes, philosophy, and policies of income maintenance programs of public assistance and social insurance.

Occupational Therapy**A HL T203 Introduction to Occupational Therapy (2 cr.)**

Introduction to field of occupational therapy; various functions of occupational therapist. Open to all students (Bloomington campus).

A HL T301 Current Professional and Administrative Concepts (3 cr.)

Principles of administration and management as related to professional concerns and responsibilities.

A HL T323 Human Behavior (2 cr.)

Study and discussion of human behavior; occupational therapy as viewed by other disciplines; seminar for A HL T324.

A HL T324 Practicum (1 cr.)

Study and observation in local community facilities.

A HL T351 Therapeutic Techniques I (5 cr.)

In-depth study of therapeutic techniques and teaching methods.

A HL T352 Therapeutic Techniques II (2 cr.)

Continuation of A HL T351.

A HL T360 Occupational Therapy Theory and Practice I (6 cr.)

Class study of bio-psycho-social development. Practicum related to patient treatment in occupational therapy.

A HL T382 Human Growth and Development (2 cr.)

Study of human growth and development from conception through aging, with implications for occupational therapy. Includes an overview of specialized treatment techniques which will be covered in-depth in A HL T360 and A HL T460.

A HL T453 Therapeutic Techniques Supplement (1, 2, or 3 cr.)

Supplemental therapeutic skills to meet the needs of transfer students.

A HL T460 Occupational Therapy Theory and Practice II (6 cr.)

Continuation of A HL T360.

AHL T495 Affiliation I (5 cr.)

Three-month internship.

AHL T496 Affiliation II (5 cr.)

Three-month internship.

Occupational Therapy Technology**TOTT T100 Introduction to Occupational Therapy (2 cr.)**

Introduction to occupational therapy with emphasis on the duties and responsibilities of the assistant in the field.

TOTT C101 Clinical Physical Conditions (4 cr.)

Information and management of clinical physical dysfunction cases referred to occupational therapy. General medical, surgical, neurological, orthopedic.

TOTT C102 Clinical Psycho-Social Conditions (4 cr.)

Information and management of clinical psycho-social dysfunction cases referred to occupational therapy. Neuroses, psychoses, character and personality disorders, developmental defects.

TOTT P200 Clinical Practice (2 cr.)

Supervised practical application of techniques in one or more psycho-social or physical dysfunction occupational therapy clinics. Semester course with personal evaluations.

TOTT P201 Practicum in Occupational Therapy (4 cr.)

Supervised practical application of techniques in a psycho-social or physical dysfunction occupational therapy clinic. One month of continuous participation with personal evaluations.

TOTT T201 Occupational Therapy Techniques I (2 cr.)

Exploration of modalities used by the assistant. Techniques of teaching, activities of daily living, activity media.

TOTT T202 Occupational Therapy Techniques II (2 cr.)

Continuation of TOTT T201.

TOTT W101 Clinic Management (2 cr.)

Establishing and operating of clinic, including equipping, maintenance, records, ethical implications, hospital and community relationships.

Radiologic Technology**AHL R405 Radiographic Correlation I (cr. arr.)**

Lecture and laboratory work in radiologic technique at an advanced level, including many procedures formerly learned and performed only by the radiologist. Included are the technique of peripheral arteriography, renography, and contrast studies of the gastrointestinal tract. Special attention given to those aspects of technology which have been considered quasi-professional. Presentation of administrative duties at the level given chief technicians. An approach to educational methods in radiologic technology is also given, with the intent that many of those completing this course will be involved in future teaching.

AHL R406 Radiographic Correlation II (cr. arr.)

Continuation of AHL R405.

AHL R410 Mathematics and Statistics in Nuclear Medicine (2 cr.)

Lectures regarding the use of statistics and logarithms in nuclear medicine and the determination of the reliability of data in nuclear medicine.

AHL R415 Nuclear Radiation Physics (3 cr.)

Lectures and clinical experiments to demonstrate the properties of ionizing radiation, especially the interaction of radiation with matter and biological systems.

AHL R420 Measures of Radiation in Nuclear Medicine (3 cr.)

Lectures and laboratory exercises concerning the fundamentals of instrument measurements, auxiliary instruments, and counting equipment and detectors.

AHL R425 Advanced Radioactive Isotope Procedures (2 cr.)

Sources, properties, and production methods of stable and radioactive isotopes; monitoring and waste-disposal techniques of radioactive material in relation to safe handling of the material.

AHL R430 Special Radioactive Isotope Procedures (8 cr.)

Lectures and clinical exercises as applied to specific clinical examinations which utilize radioactive isotope materials. Special attention given to standardization, calculations, interpretations, diagnostic applications, and therapeutic applications for each procedure.

AHL R435 Records and Administrative Procedures (1 cr.)

Lectures dealing with Atomic Energy Commission rules and regulations concerning the use of radioactive isotope materials; records, coding, and filing systems.

AHL R445 Clinical Application in Nuclear Medicine I (5 cr.)

Practical clinical application of nuclear medicine theory.

A HL R446 Clinical Application in Nuclear Medicine II (5 cr.)

Continuation of A HL R445.

A HL R450 Radiobiology (2 cr.)

Fundamentals of the biological effects of ionizing radiation on living systems, especially in man; basic biological mechanisms which bring about somatic and genetic effects.

A HL R451 Research in Radiobiology (4 cr.)

Lectures and laboratories designed to demonstrate the biological effects of ionizing radiation on living matter. Individual projects with papers required.

A HL R455 Tumor Localization Technique (5 cr.)

Various radiologic techniques used to define the limits of the tumor and to establish the borders of area or areas to be treated with radiation; clinical application of treatment.

A HL R460 Physical Principles of Radiation Physics (2 cr.)

Advanced lectures on nuclear physics; conservation of energy and matter; quantum electronics; interactions of radiations and matter.

A HL R465 Principles of Dosimetry (2 cr.)

Laboratory experiments demonstrating the principles and techniques of radiation monitoring and hazard control; operation and use of radiation survey instruments; detection and evaluation of radiation and contamination hazards.

A HL R470 Radiation Statistics Study (4 cr.)

Statistical research project dealing with data compiled in the Department of Radiation Therapy at the IUPUI Medical Center.

A HL R475 Clinical Application in Radiation Therapy (5 cr.)

Clinical application of special radiation therapy examinations.

TAHS N100 Office Procedures (1 cr.)

Fundamentals of office procedures: proper telephone technique; assembly of radiographs; systematic and accurate filing of film—both alphabetically and by the terminal-digit method; public relations with hospital personnel and patients; legal aspects of handling x-ray films. Suggestion of a basic accounting system which might be used. Course differs at the various institutions on the various campuses as size and methods vary.

TAHS N101 Nursing Procedures (1 cr.)

Nursing procedures and techniques used in the general care of the patient, with emphasis on the role of the radiologic technologist in various nursing and emergency situations. Discussion topics and lectures include isolation technique, body mechanics, pediatric care, first aid, surgical asepsis, post-surgery care, and obstetrics.

TAHS R101 Basic Roentgenographic Technique (3 cr.)

Radiographic positioning of the structures and organs of the body: precise and detailed information on the various positions, supplemented with practical instruction and application in the radiographic room. Instruction carefully correlated with the course in anatomy, so that at each session students are not given more material than they can assimilate. Discussion of the fundamental principles of positioning precedes the demonstration of the necessity for different views to maintain correct detail and proportion of parts, and their projection on a plane to avoid magnification, distortion, or superimposition of structures.

TAHS R102 Principles of Radiology (3 cr.)

Basic fundamentals concerned with production, analysis, and recording of the radiographic image, including physical and mechanical aspects of fluoroscopy. Basic factors and properties involved in medical radiography studied in their relationship to diagnostic radiographic exposure and therapeutic application of such energy. Includes hazards and proper protection and details concerning types of examinations carried out with the use of fluoroscopy.

TAHS R103 Principles of Radiology Lab (1 cr.)

Experience in applying principles of radiation exposure. Lectures and laboratory demonstrations used to aid in understanding the principles of the radiologic apparatus and accessories used.

TAHS T100 Medical Terminology (1 cr.)

Systematic introduction to the origin and derivation of medical words as well as their meaning. Includes use of the medical dictionary and study of prefixes, suffixes, and stems to develop an understanding of the meaning of terms and their proper usage. Programmed work sheets are included to assist the student in the study of words most commonly used in the medical field.

TAHS E200 Specialized Equipment (1-3 cr.)

Introduction to the use of special equipment utilized by the radiologic technologist. Students are acquainted with the responsibility of taking radiographs during emergency examinations of critically ill patients, use of bedside equipment, and operating-room facilities.

TAHS E201 Surgical Procedures (1 cr.)

Operating-room techniques and equipment; use of special radium instruments; set-ups for sterile procedures.

TAHS F200 Formulating Technique (3 cr.)

Technical factors used to produce good radiographs as well as principles involved in making technique charts on which the appropriate factors are recorded. An actual technique chart is produced by each student from making test exposures with a specified type of equipment.

TAHS M200 Pathology (2 cr.)

Orientation to the study of abnormal structure and function of the human body to acquaint the student with certain changes that occur in tissue disease and injury. Includes general pathology, dealing with the nature of degenerative processes, inflammation and repair, neoplasms; special diseases of various systems of the body; physiological abnormal function resulting from disease; and chemical pathology including chemical changes which take place in body fluids and tissues. Correlates pathological processes with clinical entities.

TAHS M201 Tumor Pathology (1 cr.)

Radiobiological and cytological characteristics of carcinoma.

TAHS R201 Advanced Radiographic Technique (3 cr.)

Lecture and laboratory exercises explaining advanced positioning technique with emphasis on pediatric technique, cineradiography, angiography, myelograms, bronchograms, cerebral pneumography, lymphangiograms, and less common procedures.

TAHS R202 Principles of Radiology II (3 cr.)

Detailed study of major fundamentals considered in TAHS R102. Detailed discussion of factors involved in film quality, radiation protection and control, application of accessory devices, capabilities and limitations of radiographic equipment, and technical conversion techniques.

TAHS R203 Radiation Therapy Treatment and Planning (2 cr.)

Lectures and practical tutorials in factors related to treatment-planning for radiation therapy: compounding isodose curves, wedged fields, tissue compensators, inhomogeneity corrections, irregularly shaped fields, rotational therapy, Paterson-Parker interstitial calculations, and isodose curves around interstitial and intracavitary applications.

TAHS R204 Radiation Therapy Technique (3 cr.)

Lectures and discussions designed to cover the basic physics relating to therapeutic radiology and the principles of radiation dosimetry. Laboratory exercises include calibration and survey of Cobalt-60 irradiators and orthovoltage X-ray machines.

TAHS X100 Clinical Practice I (cr. arr.)**TAHS X101 Clinical Practice II (cr. arr.)****TAHS X200 Clinical Practice III (cr. arr.)****TAHS X201 Comprehensive Experience (cr. arr.)**

Clinical application of radiographic theory in all phases of radiologic technology. A minimum of 2,400 clock hours of clinical practice is required prior to graduation. Credit is arranged for the above four courses according to the number of clock hours spent in the clinic per semester.

TAP A100 Anatomy and Physiology (3 cr.)

Basic structure and function of the human body. Emphasis on topographic and radiographic anatomy to enable the student to recognize the structures and organs visualized. Includes developmental anatomy from beginning cell life to the completed specialized functions of the various systems. Laboratory study of demonstration human dissections. Other illustrative materials include human skeletons, diagrams, slides, and diagnostic roentgenograms.

TCHM C100 Darkroom Chemistry (1 cr.)

Designed to develop the knowledge and skills necessary for thorough and efficient darkroom procedures; to study the history and development of x-ray film and darkroom accessories; to gain a thorough knowledge of the chemistry basic to processing solutions such as developers, hardeners, fixatives, processes for recovering silver and their functions; and to appreciate various types of darkroom equipment including automated and manual processing apparatus.

THIS H100 History and Ethics (1 cr.)

Brief history of the discovery of x-radiation and radioactive materials and the historical development of the science of radiology, with emphasis on technical progress. Designed to acquaint the student with good ethical principles and moral philosophy, with emphasis on professional ethics and ethical relationship of the technician in X-ray to other technicians, patients, radiologists, and attending physicians and other members of the hospital staff. Outlines the responsibilities entailed in becoming a member of a paramedical profession.

TPHY P200 Radiation Physics (2 cr.)

Fundamentals of electronic and radiation physics and the basic principles underlying the construction and operation of x-ray equipment and auxiliary devices; basic principles of physics and their relationships to radiology and isotopes as used in medicine.

TPHY P201 Radioactive Isotope Procedures (1 or 2 cr.)

Interpretation of the principles of nuclear physics, with an introduction to basic instrumentation and clinical application of medical isotopes. Introduction to artificially produced radioactive isotopes and their clinical uses. Use of detecting and counting equipment.

TPHY P202 Radiation Therapy (1 or 2 cr.)

Fundamentals of radiation therapy, including various types of radiation therapy devices and their application to disease. Introduction to the study of radiobiological effectiveness of radiation in tissue is presented along with basic physics required for dosimetry pertinent to treatment planning. Develops familiarity with the clinical aspects of tumor localization and verification as well as positioning for localization films and treatment. Discussion of proper methods of recording treatment data.

TPHY P203 Advanced Radiation Physics (2 cr.)

Lectures and discussions designed to cover high energy physics as it applies to radiotherapy. Laboratory exercises utilize ionization chambers, proportional counters, thermoluminescent dosimeters, and ferrous sulfate chemical dosimeters in the measurement of radiation fields. A second series of lectures covers the basic fundamentals on the applicability of computers to therapeutic radiology.

Public Health Administration**A HL W502 Administration (3 cr.)**

Analysis of the interaction of the administrative process and the organization in attaining goals in various environments.

A HL W518 Administrative Policy (3 cr.)

Administration of the business firm from the point of view of top management, formulation and administration of policy, diagnosis of executive and organizational problems, development of long range plans and programs, evaluation of administrative strategy for the business corporation. Case studies, research reports, business games.

A HL Z502 Organizational Behavior and Human Performance (3 cr.)

Unified personnel program and its operation in business and other social institutions; functional processes of manpower planning and recruiting, selection decision-making, development, direction, motivation, and research; determinants of work behavior.

CORE AND ELECTIVE COURSES**Anatomy and Physiology****A464 Histology (5 cr.)**

P: two college biology courses. Microscopic structure of mammalian (with emphasis on human) tissues and organs.

P120 Human Anatomy and Physiology (7 cr.)

Introduction to the basic structure and function of the human body with laboratory studies of the gross anatomy, histology, and general physiology of the various body systems. For students in the Associate of Arts in Nursing program. Taught at campuses other than Bloomington.

P130 Human Biology (4 cr.)

Basic concepts in human biology. Covers reproduction and development, physiological regulations, stress biology, and behavioral biology. Emphasizes related social problems. Three lecture periods and one two-hour demonstration-discussion per week. Credit given for only one 100-level course.

P230 Mammalian Anatomy and Physiology (4 cr.)

P: an introductory biology course. R: P130. Mammalian structure integrated with functional aspects of cells, tissues, and organs. Three lectures per week with one two-hour demonstration-discussion per week.

P231 Mammalian Anatomy and Physiology Laboratory (1 cr.)

P: P230 concurrently. Laboratory experiments which parallel P230. Choice of two sections, one emphasizing structural biology, the other functional biology. (Note: Medical Record Science majors are to take functional lab.)

A463 Topographical Anatomy (3 cr.)

P: P230. Laboratory study of human body in transverse sections stressing topographical relations.

Anthropology**A103 General Anthropology I (3 cr.)**

Man, his biological evolution, and his archaeological history through Stone and Metal Ages. Not open to students who have had A303.

A104 General Anthropology II (3 cr.)

World ethnography, linguistic groupings, and social processes that influence behavior. Not open to students who have had A304.

A303 Survey of Anthropology I: Prehistory and Races (3 cr.)

Introductory course for more advanced students. Man's place in nature, emergence of man and contemporary races, development of culture from Paleolithic onward, problems arising from interaction of biological and cultural phenomena. Not open to students who have had A103.

A304 Survey of Anthropology II: Culture, Language, and Personality (3 cr.)

Introduction to contemporary primitive peoples: culture patterns, diffusion, functions. Language as structure and as social reality. Modal personality and deviants as reflected in primitive cultures. Not open to students who have had A104.

A311 Bioanthropology (5 cr.)

P: A103, Biological Sciences Z103 or L100. Laboratory on bioanthropology of man: basic biological principles, morphology, function, evolutionary history. Man's evolution from lower forms, environmental factors, speciation and differentiation into varieties, mixture, growth, sexual differences, constitutional variability.

Biology**L100 Man and the Biological World (5 cr.)**

Emphasis on processes common to all organisms, with special reference to man. Credit given for only one 100-level course.

Business**B413 Methods of Employee Training (3 cr.)**

Open to graduate students by permission of instructor. Methods of instruction, development of instructional materials, program-planning, and evaluation of training activities. Types and philosophy of training programs; organization and administration; nature and extent of staff assistance.

C204 Business Communications (3 cr.)

P: Eng. W131 and sophomore standing. Theory and practice of written communication in business; use of correct, forceful English in preparation of letters, memoranda, and reports.

C300 Office Management I (2 cr.)

Principles of scientific office management and the responsibilities of management for office services, layout, space utilization, furniture and equipment, machines and appliances, branch office management, unions, personnel problems, training of workers, costs, and methods and procedures.

C403 Office Management II (3 cr.)

Open to graduate students by permission of instructor. Administration to the office services of duplicating, filing, and records management, machine transcription and typewriting, mail, calculating, communication, reception, travel, and library services. Methods of organizing and operating services, cost controls, and procedures and effective practices; laboratory work required.

C404 Office Systems and Control (3 cr.)

Open to graduate students by permission of instructor. Organization and administration of office systems work; systems analysis techniques; simplification and standardization of procedures; office equipment and systems design; procedure writing, forms design; standards and controls. Applications of systems analysis and work measurement techniques.

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 juniors and seniors in the School of Business.

J440 Manpower Resources and Development (3 cr.)

P: Z301. Nature of manpower development and utilization in modern organizations. Establishment and operation of a total manpower program. Includes recruitment, selection, training and development, performance appraisal, reward system, benefit programs, role of personnel department, and role of government.

K201 The Computer in Business (2 cr.)

P: Math. M119; A200 or A201 (may be taken concurrently). Introduction to digital computers and illustrations of their use in business. Stored program concept, types of programming languages, instruction in a specific compiler language; utilization of Business Computing Center. Impact of computers upon business management and organization.

L200 Elements of Law (3 cr.)

For business education majors and nonbusiness students. Focuses on the nature and development of law as an expression of social policy, the American judicial system, and a number of basic legal principles encountered by all citizens, primarily in the fields of torts, contracts, and agency. Credit not given for both L200 and L201.

W100 Business Administration: Introduction (3-4 cr.)

Business administration from standpoint of manager of a business firm operating in the contemporary economic, political, and social environment. No credit for juniors and seniors in the School of Business.

Z301 Organizational Behavior and Leadership (3 cr.)

P: Psych. P101, Soc. S161. Nature of human behavior in organizations as function of the individual, the groups within which he interacts, and the organizational setting. Emphasis on application of behavioral science concepts and findings to individual behavior and organizational performance.

Chemistry

C100 Chemistry (5 cr.)

High school chemistry or physics recommended. Fundamental principles, including organic chemistry and biochemistry, with illustrations of scientific reasoning and applications. For students in programs requiring only one semester of chemistry. Lectures, recitation, laboratory. Credit given for only one of the courses C100, C101, or C105.

C101 Elementary Chemistry I (5 cr.; 3 cr. without lab.)

Essential principles of chemistry. When followed by C102, satisfies programs that require only two semesters of chemistry. Admission to advanced courses on basis of C101-C102 granted only in exceptional cases. Lectures, recitation, laboratory. Credit given for only one of the courses C100, C101, or C105.

C102 Elementary Chemistry II (5 cr.)

P: C101 (5 cr.). Continuation of C101. Introduction to organic chemistry and biochemistry; organic compounds and their reactions. Lectures, recitation, laboratory.

C105 Principles of Chemistry (5 cr.)

P: two years of high school algebra or Math. M017, which may be taken concurrently; placement examination or 13 hours of college credit. Basic principles, including stoichiometry, equilibrium, atomic and molecular structure. Lectures, recitation, laboratory. Credit given for only one of the courses C100, C101, or C105.

C106 Quantitative Chemistry (5 cr.)

P: C105 or exemption by examination. Solution equilibria, structures and properties of inorganic compounds. Lectures, recitation, laboratory. Laboratory based on elementary quantitative analysis. Credit not given for both C102 and C106.

C313 Clinical Chemistry (3 cr.)

P: C341. Introduction to the theory and operation of basic instrumental and other methods used in the practice of clinical chemistry. Primarily for students in programs of the Division of Allied Health Sciences and students in other areas of applied biology. Credit is not applicable toward meeting the concentration-group requirements for a degree in chemistry.

C341 Organic Chemistry I Lectures (3 cr.)

P: C106; C343 concurrently or consent of chemistry undergraduate adviser. Chemistry of carbon compounds. Nomenclature; qualitative theory of valence; structure and reactions. Syntheses and reactions of major classes of monofunctional compounds.

C343 Organic Chemistry I Laboratory (2 cr.)

P: C341 concurrently. Laboratory instruction in the fundamental techniques of organic chemistry and the use of general synthetic methods.

Classics

C205 Classical Mythology (2 cr.)

Basic classical myths, with illustrations from art and examples of their literary use.

C209 Greek and Latin Elements in Medical Terminology (2 cr.)

Basic vocabulary of some 1,000 words, together with materials for formation of compounds, enables students to build working vocabulary of several thousand words. Designed for those intending to specialize in medicine, nursing, dentistry, or microbiology.

Comparative Literature

C145 Major Themes and Characters in World Literature I (3 cr.)

Comparative analysis of the literary treatment of mythical themes and archetypal characters in different periods and traditions such as: Electra (Euripides, O'Neill, Giraudoux), Tristan (Gottfried, Tennyson, Wagner), Faust (Marlowe, Goethe), Don Juan (Tirso de Molina, Molière, Pushkin, Shaw).

C146 Major Themes and Characters in World Literature II (3 cr.)

Comparative analysis of the literary treatment of historical characters and themes such as: Julius Caesar (Plutarch, Shakespeare, Wilder), Joan of Arc (Voltaire, Schiller, Shaw, Anouilh), the French Revolution and Napoleon (Carlyle, Stendhal, Tolstoy, Büchner, Weiss).

C225 Modern Literature and the Arts (2 cr.)

Emphasis on similarities and differences between modern literature, music, and the fine arts. Analysis of various art forms.

Economics

E201-E202 Principles of Economics I-II (3-3 cr.)

Introduction to economic principles and problems: economic organization, production, consumption, distribution of wealth and income, money and banking, value and the pricing process, business cycles, risk and insurance, labor problems, industrial monopolies, international economic relations.

Education

P503 Introduction to Research (3 cr.)

Methods and procedures in educational research.

P507 Educational Measurement (3 cr.)

History and theory of measurement, interpretation of measurement data, tests for administrative and supervisory purposes and for teaching aids, prognostic testing, and testing in relation to pupil diagnosis and adjustment.

P510 Psychology in Teaching (3 cr.)

Basic study of psychological concepts and phenomena in teaching. An analysis of representative problems and of the teacher's assumptions about human behavior and its development. This course is intended for those working toward the master's degree and who currently are or are planning to be classroom teachers.

R523 Utilization of Audio-Visual Materials (3 cr.)

Includes the study of general practices in the selection and utilization of major types of audio-visual materials, ways of using projection and audio equipment, and preparation and use of such materials as bulletin boards and flannel boards.

R543 Preparation of Inexpensive Instructional Materials (2 cr.)

Laboratory practice in applying such techniques as lettering, coloring, and mounting to illustrations and other materials in the preparation of pictures, maps, charts, posters, and graphs for projected and nonprojected use.

S518 Advanced Study in the Teaching of Secondary School Science (3 cr.)

For science teachers. Improved techniques, current literature, textbooks, and free and low-cost materials. Solution of specific practical problems confronting science teachers in the classroom and laboratory.

T501 Introduction to Scientific Inquiry (3 cr.)

Analysis and interpretation of data, introduction to theory of advanced statistical techniques, and principles of research design appropriate to clinical setting.

T525 Physical Therapy Curriculum Development (3 cr.)

Principles of curriculum construction. Content, materials, and methods of instruction in physical therapy curriculum. Educational implications of various levels of preparation in physical therapy.

English

W131 Elementary Composition (2 cr.)

Progresses from practice of simple description, narration, and exposition to practice of persuasion and documentation in support of a thesis.

W140 Elementary Composition, Special Program (2 cr.)

To be taken by specially qualified students in place of W131.

L101-L102 Freshman Literature I-II (3-3 cr.)

Literary masterpieces from Homer to the present. Aims to teach thoughtful, intensive reading, to introduce students to aesthetic values in literature, and to make students aware of the enjoyment of reading.

The following courses are open to sophomores, juniors, and seniors and to second-semester freshmen who have received a grade of B or above in L101:

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. Recommended for students majoring in English or other literatures.

L203 Introduction to Drama (3 cr.)

Representative group of significant plays to acquaint students with characteristics of drama as a type of literature.

L204 Introduction to the Novel and Short Story (3 cr.)

Representative works of fiction; stresses structural technique in the novel, theories and kinds of fiction, and thematic scope of the novel.

L205 Introduction to Poetry (3 cr.)

Kinds, conventions, and elements of poetry in a selection of poems from several historical periods.

L206 Introduction to Biography (3 cr.)

Aims, techniques, and development of biographical writing; the familiar essay as a form of self-revelation; diaries and letters as forms and as materials of biography.

Fine Arts

A110 Art of the Ancient World (3 cr.)

Greek, Hellenistic, Etruscan, and Roman periods of art.

A120 Art of the Medieval World (3 cr.)

Early Christian, Byzantine, Romanesque, and Gothic periods of art.

A130 Art of the Renaissance and Baroque (3 cr.)

Architecture, sculpture, and painting in Italy, France, the Low Countries, Germany, and Spain from the 15th through 17th centuries.

A140 Art of the Modern World (3 cr.)

Painting, sculpture, and architecture in Western Europe and America from the 18th century to the present.

A150 Arts of Oceania, Africa, and Pre-Columbia America (3 cr.)

Arts of the non-Western world outside the Orient.

A160 Art of the Orient (3 cr.)

Architecture, sculpture, and painting of Iran, India, Southeast Asia, Central Asia, China, Korea, Japan, and the world of Islam from antiquity until modern times.

T255 Crafts and Design I (2 cr.)

Creative design developed through drawing, collage, and color problems. Fabrics, masks, puppets, sculpture.

Forensic Studies

P101 Foundations of Law and Order (3 cr.)

Principles underlying social organizational control devices, with emphasis on legal systems. Historical and philosophical background of criminal justice systems in Western world.

P371 Evidentiary Problems (2 cr.)

R: P102. Courtroom procedures and rules affecting admissibility and value of evidence in criminal trials.

French

F101-F102 Elementary French I-II (5-5 cr.)**F103 Intermediate French (5 cr.)**

For students from secondary school placed into second semester of first year. Credit is not allowed for both F102 and F103.

F201-F202 Second-Year Composition and Oral Practice I-II (2-2 cr.)**F210 Second-Year Composition, Oral Practice, and Reading (5 cr.)**

Combines work of F201 and F211 into single unified course.

F211-F212 Modern French Prose I-II (3-3 cr.)

Geography

G107 Introduction to Physical Geography (5 cr.; 3 cr. without lab.)

Physical characteristics of earth's surface and their interrelations. Landforms, vegetation, soils, weather, climate.

G210 Introduction to Human Geography (3 cr.)

A study of geographic patterns and interrelationships as illustrated by the analysis of selected major world regions.

G213 Introduction to Economic Geography (3 cr.)

Principles of economic geography including theories concerning industrial location, competition for land, economic nature of resources, and geographic background of interregional trade.

G304 Climatology (3 cr.)

P: G107, Mathematics M015 or equivalent. Systematic and regional study of world climates.

Principles and methods of physical and dynamic climatology. Climatic classification.

G310 Geography of Settlement (3 cr.)

P: 3 hours of geography or junior standing. Interrelations between population distribution, settlement patterns, and selected phenomena of physical and cultural environment.

G313 Political Geography (3 cr.)

R: 3 hours of geography or advanced courses in history or political science or special permission. Geographical influences which have affected and continue to affect development of political units, such as nations, states, and parties, as background for better understanding of current events.

Geology

G100 Earth Science: Geologic Aspects (5 cr.)

Broad study of the earth. The earth in the solar system, earth's atmosphere. Formation and modification of earth materials, landforms, continents, and oceans throughout geologic time. Geological record in selected areas. Lectures, laboratory, recitation, field trip. Credit not given for both G100 and G105.

G111 Elements of Geology I (3 cr.)

Basic concepts of geology. Geological time, formation of rocks; erosion and landscape evolution. Interpretation of earth history from geological data. Lectures, laboratory. Recommended for prospective science majors. Credit not given for both G111 and G100 or T305.

G112 Elements of Geology II (3 cr.)

P: G111. Continuation of G111. Geosynclines and origin of fold mountains. The interior of the earth; formation of the core, mantle, and crust. Continental drift, sea-floor spreading, and earth history. Credit not given for both G112 and G100 or T305.

German**G101-G102 Elementary German I-II (5-5 cr.)**

Introduction to present-day German and selected aspects of German civilization. Intensive drills for mastery of phonology, basic structural patterns, and functional vocabulary. Selected readings.

G103 Intermediate German (5 cr.)

For students from secondary school or transfer students placed into second semester of first year. Intensive review of basic material introduced in G101 and treatment of materials covered in G102. Credit is not allowed for both G102 and G103.

G210 Oral Practice, Writing, and Reading I (5 cr.)

P: G102, G103 or equivalent. Further development of oral and written command of language structures. Study of selected short stories by prominent modern writers such as Brecht, Kafka, Böll and Frisch and one additional longer prose text or play.

G211 Second-Year Reading (3 cr.)

P: G102 or G103 or equivalent. Grammar review and reading of selected modern short stories and essays. Terminal course; only for students with 13-hour language requirement.

G212 Modern German Prose and Plays (3 cr.)

P: G210 or equivalent. Extensive reading of works by such authors as Mann, Kafka, Borchert, and Dürrenmatt. Discussion of content and explication of literary aspects will be stressed as well as textual analysis of selected passages. Credit given only for one of the following: G212, G220, G232.

G220 Oral Practice, Writing, and Reading II (5 cr.)

P: G210 or equivalent. Review of selected grammatical items. Extensive reading of modern German prose and plays (e.g. Mann, Kafka, Brecht, Dürrenmatt) with stress on discussion in German of content and style. Writing of descriptive and expository prose based on the reading material. Credit given only for one of the following: G212, G220, G232.

G232 Scientific German (3 cr.)

P: G210 or equivalent. Review of selected grammatical items to facilitate reading of difficult German prose. Reading and translation of contemporary German scientific articles in the natural and social sciences. Credit given only for one of the following: G212, G220, G232.

Health, Physical Education, and Recreation**M130 Basic Instruction in Physical Education for Men (1 cr.)**

Instruction in basic sports skills for male University Division students. Reasonable competence in individual and dual sports stressed; physical limitations considered; emphasis on carry-over value of recreational sports and need for continued physical fitness.

W100 Basic Instruction in Physical Education for Women (1 cr.)

Activities in the Department of Physical Education for Women are elective. The following activities are offered on a semester basis: apparatus and tumbling, ballet, horsemanship, judo, modern dance, and swimming (including synchronized, Red Cross Life Saving, and Instructor's). The following activities are offered on a seasonal basis: archery, badminton, bait and fly casting, basketball, body dynamics, conditioning exercises, diving, exercise to music, fencing, folk dancing, golf, hockey, lacrosse, recreational games, riflery, social dance, softball, square dance, swimming, tennis, track and field, volleyball, and water polo.

H160 First Aid (2 cr.)

Lecture and demonstration on first-aid measures for wounds, hemorrhage, burns, exposure, sprains, dislocations, fractures, unconscious conditions, suffocation, drowning, and poisons, with skill training in all procedures.

R180 Recreation Leadership (2 cr.)

History, theory, and philosophy of recreation. Significance of recreation in age of leisure and evolution of recreation movement. Practical leadership techniques for low-organized recreation activities, especially helpful in elementary education.

R273 Arts and Crafts (2 cr.)

Principles and techniques of arts and crafts for school, hospital, youth agency, recreation center, playgrounds, and other areas.

History

H101-H102 European-American World since 1500 I-II (3-3 cr.)

Expansion of Western civilizations from Europe to North America; principal developments in Atlantic community as a whole, *emphasizing common problems and forces as well as diversities.*

H103-H104 History of Western European Civilization I-II (3-3 cr.)

Rise and fall of ancient civilizations; barbarian invasions; rise, flowering, and disruption of medieval Church; feudalism; national monarchies; rise of middle class; parliamentary institutions, liberalism, political democracy; industrial revolution, capitalism and socialist movements; nationalism, imperialism, international rivalries, wars.

H105-H106 American History: General Course I-II (3-3 cr.)

I. Colonial period, Revolution, Confederation and Constitution, National period to 1865. II. 1865 to present. Political history forms framework, and economic, social, cultural and intellectual history interwoven. Introduction to historical literature, source material, and criticism.

Home Economics

H107 Clothing Construction (2 cr.)

Application of principles and theories of art, textiles, and clothing construction to selection; laboratory work in alteration, use of commercial patterns. One hour lecture, two hours laboratory weekly.

H120 Food Preparation and Meal Service (3 cr.)

Application of scientific principles of food preparation, problems in food selection, buying, menu planning, and table service. One hour lecture, four hours laboratory weekly.

H168 Art in Everyday Life (3 cr.)

Design principles basic to an appreciation of beauty in line, form, color, and texture; application to practical problems of the individual and his home. One hour lecture, four hours laboratory weekly.

H190 Introduction to Home Economics (1 cr.)

Understanding and appreciation of the scope, development, purposes, and trends in the field; survey of professional opportunities in various areas of home economics.

H194 Family Health and Home Nursing (2 cr.)

Factors conducive to maintaining optimum health for all family members; care of the sick.

H201 Weaving and Handcrafts (3 cr.)

Cultural, practical, and therapeutic values of handweaving; methods in production of handwoven textiles; techniques and materials for handcrafts. Two hours lecture, four hours laboratory weekly.

H231 Human Nutrition (2 cr.)

Basic principles. Food needs of individuals in different age, cultural, and family settings.

H236 Fundamentals of Nutrition (3 cr.)

Relationship of the identification, function, metabolism, and sources of nutrients required by individual for growth and development. Not applicable toward major in home economics. Credit not given for both H231 and H236.

H265 Home Furnishing and Decoration (3 cr.)

P: H168. Aesthetic, economic, and practical problems in house design; development of standards of good taste in selection and arrangement of home furnishings.

Italian

M101-M102 Elementary Italian I-II (5-5 cr.)

Linguistics

L103 Introduction to the Study of Language (3 cr.)

Linguistics as a body of information; nature and function of language; relevance of linguistics to other disciplines, with reference to modern American *English* and principal European languages.

Mathematics

M015 Review of Algebra and Trigonometry (5 cr.)

P: one year of high school algebra. Introduction to mathematical reasoning, algebra, and trigonometry. Not open to those who have had M017. Credit may not be applied toward degrees in the College of Arts and Sciences but may be counted toward degrees in the Division of Allied Health Sciences.

M017 Partial Review of Algebra and Trigonometry (3 cr.)

P: one and one-half years of high school algebra. Introduction to mathematical reasoning, algebra, and trigonometry. Not open to those who have had M015. Credit may not be applied toward degrees in the College of Arts and Sciences but may be counted toward degrees in the Division of Allied Health Sciences.

M118 Finite Mathematics (3 cr.)

P: two years of high school algebra or M015 or M017. Set theory, linear systems, matrices and determinants, probability, linear programming. Applications to problems from the social sciences. Recommended for those in health sciences.

M119 Brief Survey of Calculus (3 cr.)

P: two years of high school algebra and trigonometry or M015 or M017. Introduction to calculus. Primarily for students in the social sciences. Not open to those who have had M211 or M215.

M131 Plane Analytic Geometry (2 cr.)

P: two years of high school algebra and trigonometry or M015 or M017. Coordinate systems, loci, equations of curves, straight line, circle, conic sections, general equation of second degree. Not open to those who have had M215. A student cannot receive credit for both M131 and M215.

M211 Calculus (3 cr.)

P: knowledge of plane analytic geometry, including ellipse, hyperbola, and parabola. Differentiation and integration of functions of one variable and applications. This course, together with adequate knowledge of analytic geometry, is equivalent to M215. Not open to those who have had M119 or M215.

M15-M216 Analytic Geometry and Calculus I-II (5-5 cr.)

P: two years of high school algebra and trigonometry or M015 or M017. Coordinates, functions, straight line, limits, continuity, derivative and definite integral, applications, circles, conics, techniques of integration, infinite series. A student cannot receive credit for both M131 and M215, M119 and M215, M211 and M215, or M120 and M216.

K300 Statistical Techniques (3 cr.)

P: M017 or equivalent. R: 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.

Microbiology

M250 Introductory Microbiology: Lecture (3 cr.)

P: an introductory biology course; a general chemistry course. Introduction to microorganisms: cytology, nutrition and cultivation, physiology. Importance of microorganisms in applied fields; role of bacteria and viruses in infectious diseases.

M255 Introductory Microbiology: Laboratory (2 cr.)

P: M250, which should be taken concurrently. An audio-tutorial laboratory of exercises and demonstrations to yield proficiency in principles and techniques in the cultivation and utilization of microorganisms under aseptic conditions.

M440 Medical Microbiology: Lecture (3 cr.)

R: M250. Microorganisms as agents of disease; host-parasite relationships; epidemiology, chemotherapy.

M445 Medical Microbiology: Laboratory (2 cr.)

R or concurrent: M440. Laboratory experiments and a research project to accompany and illustrate material discussed in M440.

Music

M174 Appreciation of Music I (3 cr.)

How to listen to music; art of music and its materials; instruments and musical forms.

M175 Appreciation of Music II (3 cr.)

Music of the 19th and 20th centuries. More intensive coverage than M174.

M201-M202 Literature of Music I-II (3-3 cr.)

From classical antiquity to the present. Designed to develop a perspective of the evolution of music in its social-cultural milieu, a repertoire of representative compositions, and a technique for listening analytically and critically. Nonmusic majors may enroll with consent of instructor.

X050 University Orchestra (2 cr.)**X060 University Bands: Concert Units—Two Symphonic Wind Ensembles, Concert Band, and Varsity Band; Marching Unit—Marching Hundred (2 cr.)****X070 University Choral Ensembles (2 cr.)**

Philosophy

P100 Introduction to Philosophy (3 cr.)

Perennial problems of philosophy, including problems in ethics, in epistemology and metaphysics, in philosophy of religion. Readings in selected writings of philosophers from Plato to the present.

P140 Elementary Ethics (3 cr.)

Some ancient, medieval, or modern philosophers' answers to ethical problems (e.g., nature of good and evil, relation of duty to self-interest, and objectivity of moral judgment).

P150 Elementary Logic (3 cr.)

Development of critical tools for the evaluation of arguments. Not a prerequisite for P250.

Physics**P100 Physics in the Modern World (5 cr.)**

Ideas, language, methods, impact, and cultural aspects of physics today. Four lectures and one two-hour laboratory period each week. Includes classical physics up to physical bases of radar, atomic-energy applications, etc. Beginning high school algebra used. Cannot be substituted for physics courses explicitly designated in specified curricula. No credit in this course will be given to students who have passed P201-P202 or P221-P222.

P201 General Physics: Mechanics, Heat, and Sound (5 cr.)

P: Mathematics M017 or high school equivalent. Two lectures, two recitations, and one double laboratory period each week.

P202 General Physics: Light, Electricity, and Magnetism (5 cr.)

P: P201. Two lectures, two recitations, and one double laboratory period each week.

Political Science**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.

Y105 Introduction to Political Theory (3 cr.)

Perennial problems of political philosophy, including relationship between rulers and ruled, nature of authority, social conflict, character of political knowledge, and objectives of political action.

Y107 Introduction to Comparative Politics (3 cr.)

Similarities and differences between political units; elements of stability and change in political systems. Emphasis on methods of comparative analysis.

Y109 Introduction to World Politics (3 cr.)

Causes of war, nature and attributes of the state, imperialism, international law, national sovereignty, arbitration, adjudication, international organization, major international issues.

Y301 Popular Control of American Government (3 cr.)

R: Y103. Functions and activities of political parties, interest groups, and public opinion in American political system. Recent developments in research on electoral political behavior, political leadership, and opinion formation.

Y303 Formation of Public Policy in the United States (3 cr.)

R: Y103. Processes and institutions involved in formation of public policy in a democratic society, with emphasis on American experience.

Psychology**P101 Introductory Psychology I (3 cr.)**

Introduction to psychology; its methods, data, and theoretical interpretation in areas of learning, sensory psychology, and psychophysiology.

P102 Introductory Psychology II (3 cr.)

P: P101. Continuation of P101. Individual differences; personality; developmental, abnormal, and social psychology.

P105 General Psychology (5 cr.)

Open to special students upon invitation. Intensive introduction to psychology, combining aims and contents of P101, P102, and P111.

P111 Introductory Laboratory Psychology I (2 cr.)

P: P101. R: Mathematics M017. Experimental laboratory course supplementary to P101. Experimental method and statistical treatment of data; laboratory investigation of selected topics in general psychology.

P112 Introductory Laboratory Psychology II (2 cr.)

P: grade of C or higher in P101 and P111. Continuation of laboratory practice in methods and fields of general psychology.

P234 Mental Hygiene (3 cr.)

P: 3 hours of psychology. Development and maintenance of mental health by application of psychological and psychiatric principles of normal human behavior.

P316 Psychology of Childhood and Adolescence (3 cr.)

P: 5 hours of psychology. R: P102. Development of behavior in infancy, childhood, and youth; factors which influence behavior.

P319 Psychology of Personality (3 cr.)

P: 5 hours of psychology. R: P102. Methods and results of scientific study of personality. Basic concepts of personality traits and their measurements; developmental influences; problems of integration.

P324 Abnormal Psychology (3 cr.)

P: 5 hours of psychology. R: P102. A first course in abnormal psychology, with emphasis on forms of abnormal behavior, etiology, development, interpretation, and final manifestations.

Religion**R152 Introduction to Religions of the West (3 cr.)**

Origins, development, institutions, beliefs, and current status.

R160 Introduction to Religion in Culture (3 cr.)

Traditional patterns of encounter with the sacred. Secularization of Western culture. Religious elements in contemporary American culture.

R210 Religion of Ancient Israel (3 cr.)

Development of its beliefs, practices, and institutions from the Patriarchs to the Maccabean period. Introduction to the biblical literature and other ancient Near East documents.

R220 The Christian Church in New Testament Times (3 cr.)

Origins of the Christian movement and development of its beliefs, practices, and institutions in the 1st century. Primary source is the New Testament, with due attention to non-Christian sources from the same environment.

R253 Religious Traditions: East Asia and India (3 cr.)

Origins, development, institutions, beliefs, and current status. Credit not given for both R153 and R253.

Sociology**S161 Principles of Sociology (3 cr.)**

Nature of interpersonal relationships, societies, groups, communities, and institutional areas such as the family, industry, and religion; social process operating within these areas; significance for problems of personalization, human nature, social disorganization, and social change.

S163 Social Problems (3 cr.)

P: S161. Major social problems in areas such as the family, religion, economic order; crime, mental disorders, civil rights; racial, ethnic, and international tensions. Relation to structure and values of larger society.

S232 Society and the Individual (3 cr.)

P: S161. Personality and its development; relationship to culture and communication and to social settings; deviant types.

S260 Current Social Issues and Public Policy (3 cr.)

Topics may vary from semester to semester. Social issues such as race relations, poverty, the inner city, and violence are analyzed, with particular emphasis on the implications of sociological analysis for public policy.

S309 The Community (3 cr.)

P: 6 hours of sociology, or S161 and junior standing. Urban, suburban, and rural communities, especially in America; community and neighborhood structure and organization; housing and land utilization; human behavior; patterns of community growth; community planning.

Spanish**S101-S102 Elementary Spanish I-II (5-5 cr.)**

Intensive introduction to present-day Spanish, with drills for mastery of phonology, basic structural patterns, and functional vocabulary. Attendance in Language Laboratory required.

S103 Intermediate Spanish (5 cr.)

For students from secondary school placed into the second semester of first-year study. Credit is not allowed for both S102 and S103.

S203-S204 Second-Year Spanish I-II (4-4 cr.)

P: S102 or equivalent. Meets five times a week. I. Intensive drill reviewing important structural and vocabulary problems, coordinated with literary readings. Attendance in Language Laboratory required. II. Discussion in Spanish of contemporary Hispanic literature. Practice in composition both semesters. Sequence substitutes for S201, S211-S212.

Speech and Theatre**General****S121 Public Speaking (2 cr.)**

Theory and practice of public speaking: training in thought processes necessary to organize speech content; analysis of components of effective delivery and language.

S130 Public Speaking, Special Program (2 cr.)

For superior students in place of S121.

S143 Fundamentals of Oral Interpretation (2 cr.)

Basic principles and practice: analysis and reading of selections from prose, poetry, and drama.

S200 Training the Speaking Voice (1 cr.)

Exercises for production of good speaking voice and adequate speech sounds.

Rhetoric and Public Address**S221 Social Influence of Speech I (3 cr.)**

Development of speech and theories of oral discourse; the communication process and human behavior and culture; speech in conflict situations.

S222 Social Influence of Speech II (3 cr.)

Influence of public address, historical and current problems of freedom of speech, ethics, propaganda, and demagoguery.

S223 Business and Professional Speaking (3 cr.)

R: S121. Preparation and presentation of types of speeches and oral reports appropriate to business and professional occupations; group discussion and parliamentary procedure.

S224 Parliamentary Procedure (1 cr.)

Modern concepts of parliamentary forms in legislative assemblies and business meetings; practice in use of parliamentary procedure. Not open to students with credit in S223.

S229 Discussion and Group Methods (3 cr.)

P: S121, or S130. Leadership and participation in group, committee, conference, and public discussion; logical and psychological aspects of group process.

S323 Speech Composition (3 cr.)

P: S121 or S130; and one of the following: S221, S222, S223, S228, S229. Advanced speech writing; theories of style, written and spoken language; logical proofs; emotional and ethical appeals. Practice in composition and delivery.

Speech Pathology and Audiology**S160 Speech Correction for Classroom Teaching (3 cr.)**

Classification and methods of therapy for speech and hearing disorders; emphasis on rehabilitation that can be given by teacher to children in classroom situations.

Theatre and Drama**S240 Appreciation of the Theatre (2 cr.)**

Aspects of theatre chosen to increase understanding and appreciation of this art form.

S247-S248 Introduction to History of the Theatre I-II (3-3 cr.)

Significant factors in primary periods of theatre history and their effect on contemporary theatre. Review of representative plays of each period to illustrate theatrical use of dramatic literature.

Zoology**Z103 Animal Biology (5 cr.)**

Emphasis on interdependence of all living things. Type forms, e.g., frog, crayfish, earthworm, used to demonstrate general biological principles. Functional aspects of biology, inheritance, development, and evolution and their application to human biology. Credit given for only one 100-level course.

Z215 Developmental Anatomy (5 cr.)

P: an introductory biology course. Comparative study of the structure and development of vertebrates, including man.

Z364 Genetics (4 cr.)

P: an introductory biology course; at least sophomore standing. Principles of heredity at the molecular, cellular, individual, and population levels. Not open to students with credit in L305-L306.

Z366 Genetics Laboratory (3 cr.)

P: Z364. Experiments with plants, animals, bacteria, and viruses demonstrating fundamental genetic mechanisms. Not open to students with credit in L306.

Faculty and Staff, 1970-71

Certification Abbreviations

- A.R.I.T.—American Registry of Inhalation Therapists; approved by the American Society of Anesthesiology and the American College of Chest Physicians
- C.T. (ASCP)—Cytotechnologist; approved by the American Medical Association and the American Society of Clinical Pathologists
- H.T. (ASCP)—Histological Technician; approved by the American Medical Association and the American Society of Clinical Pathologists
- M.T. (ASCP)—Medical Technologist; approved by the American Medical Association and the American Society of Clinical Pathologists
- M.T. (ASCP) BB—Blood Banking Technologist; approved by the American Medical Association and the American Society of Clinical Pathologists
- N.M.T. (ASCP)—Nuclear Medical Technologist; approved by the American Medical Association and the American Society of Clinical Pathologists
- O.T.R.—Registered Occupational Therapist; approved by the American Medical Association and the American Occupational Therapy Association
- R.D.H.—Registered Dental Hygienist; approved by the American Dental Association
- R.P.S.—Registered Professional Sanitarian
- R.P.T.—Registered Physical Therapist; approved by the American Medical Association and the American Physical Therapy Association
- R.R.L.—Registered Medical Record Librarian; approved by the American Medical Association and the American Medical Record Association
- R.T.—Registered Radiologic Technologist; approved by the American Medical Association and the American Registry of Radiologic Technologists
- H.E.I.F.S.S.—Hospital Education Institution Food Service Society

PROGRAM DIRECTORS

- LYNN ARBOGAST, M.D., Director of the Division of Allied Health Sciences
- HAROLD S. ADAMS, B.S., Director of Public Health-Environmental Health
- JOAN L. CATHERMAN, M.S., Director of Public Health Dental Hygiene
- JOSHUA L. EDWARDS, M.D., Director of Cytotechnology
- MRS. FRANCES C. EKSTAM, M.S., Director of Physical Therapy
- CHARLES H. HELMEN, M.D., Director of Radiologic Technology
- SAMUEL H. HOPPER, Ph.D., Director of Public Health Administration and Education
- MARY A. LACY, R.R.L., Director of Medical Records
- ALVIN M. LOSASSO, M.D., Director of Respiratory Therapy
- CAROL NATHAN, A.M., Director of Occupational Therapy
- CARLETON NORDSCHOW, M.D., Director of Medical Technology
- ARLENE M. WILSON, M.S., Director of Hospital Dietary Technology

MEDICAL CENTER

- ADAMS, HAROLD S., B.S. (Massachusetts State College, 1929), R.P.S. (State of Indiana), Director of the Public Health-Environmental Health Program, and Associate Professor of Public Health
- ARBOGAST, LYNN, M.D. (Indiana University, 1936), Director of the Division of Allied Health Sciences, and Professor of Pathology
- ASHTON, MRS. JANATEA, B.S. (Indiana University, 1965), R.R.L. (1965), Instructor in the Medical Records Program
- BAKER, JUDY, R.T. (Indiana University, 1968), Teaching Associate
- BATTERSBY, J. STANLEY, M.D. (Indiana University, 1939), Acting Chairman, and Professor of Surgery
- BEHNKE, ROY H., M.D. (Indiana University, 1946), Professor of Medicine

- BENZ, JAMES, M.D. (Indiana University, 1955), Assistant Professor of Pathology; Director of Clinical Laboratories, Marion County General Hospital
- BIGGS, HOMER G., Ph.D. (University of Iowa, 1956), Professor of Clinical Pathology
- BLAND, HESTER B., H.S.D. (Indiana University, 1956), Lecturer in Public Health Education (Northwest)
- BONDERMAN, DEAN P., Ph.D. (University of Iowa, 1968), Assistant Professor of Clinical Pathology
- BONSETT, CHARLES A., M.D. (Indiana University, 1952), Associate in Neurology
- BOUCHER, HELEN B., M.S. (Indiana University, 1962), Assistant Professor of Dietetics
- BOYD, DREXELL A., D.D.S. (Indiana University, 1934), Professor of Operative Dentistry (School of Dentistry)
- BRADLEY, T. KAY, B.S. (Indiana University, 1967), O.T.R. (1967), Instructor in Occupational Therapy
- BRAHME, FOLKE, M.D. (University of Lund, Sweden, 1956), Associate Professor of Radiology
- BRASHEAR, R. E., M.D. (The Ohio State University, 1958), Associate Professor of Medicine
- BRITTAIN, HARRY M., Instructor in Psychiatry
- BROWN, EDWIN W., JR., M.D. (Harvard University, 1953), M.P.H. (Harvard University, 1957), Associate Professor of Preventive Medicine
- CAIN, MARY ANN, B.S. (Indiana University, 1968), M.T. (ASCP, 1968), Lecturer in Medical Technology
- CAMPBELL, J. A., M.D. (University of Cincinnati, 1938), Consulting Radiologist in the Student Health Service; Chairman, and Professor of Radiology
- CARR, JACK D., D.D.S. (Indiana University, 1939), M.S. (Butler University, 1957), Assistant Professor of Radiology
- CATHERMAN, JOAN L., M.S. (Columbia University, 1962), Director of Dental Hygiene Program, and Assistant Professor of Dental Hygiene (School of Dentistry)
- COCKERILL, EDWARD M., M.D. (Indiana University, 1961), Assistant Professor of Radiology
- CONINE, MRS. TALI A., H.S.D. (Indiana University, 1968), R.P.T. (1956), Associate Professor of Physical Therapy
- DALY, WALTER J., M.D. (Indiana University, 1955), Chairman, and Professor of Medicine
- DARRELL, ALAN M., A.B. (University of Maine, 1950), C.L.U. (1965), Lecturer in Health Insurance
- DEFRAITZ, MRS. ANITA P., A.M. (Indiana University, 1962), Instructor in Speech Pathology (School of Dentistry)
- DRITSAS, EUGENIA, Ph.G. (Massachusetts College of Pharmacy, 1924), M.T. (ASCP, 1931), Instructor in Serology
- DUFFER, BARBARA A., B.S. (Indiana University, 1965), R.P.T. (1965), Instructor in Physical Therapy
- DYSON, KENNETH, R.T., N.M.T. (Indiana University, 1968), Teaching Associate
- EDWARDS, JOSHUA L., M.D. (Tulane University of Louisiana, 1943), Director of Cyto-technology; Chairman, and Professor of Pathology
- EKSTAM, MRS. FRANCES C., M.S. (Indiana University, 1960), R.P.T. (1944), Director of the Physical Therapy Program, and Professor of Physical Therapy
- FARBER, MRS. SHEREEN, B.S. (The Ohio State University, 1967), O.T.R. (1967), Instructor in Occupational Therapy
- FASSNACHT, GEORGE G., M.C.E. (New York University, 1940), Lecturer in Public Health
- FEELEY, MRS. MARY, B.S. (Butler University, 1945), M.T. (ASCP, 1946), Coordinator and Instructor in Medical Technology
- FISHER, FRANK E., B.S.E.E. (Purdue University, 1930), Lecturer in Public Health
- FOLEY, PATRICIA, A.S. (Alfred State Technical Institute, 1962), Lecturer in Radiologic Technology
- FOLKENING, JAMES, A.S., R.T. (Indiana University, 1969), Teaching Associate in Radiologic Technology
- FRANKEN, EDMUND A., JR., M.D. (University of Oklahoma, 1961), Assistant Professor of Radiology

- FRIEDMAN, CHERYL A., M.S. (Indiana University, 1970), M.T. (ASCP, 1967), Instructor in Medical Technology
- GARCEAU, GEORGE J., M.D. (Northwestern University, 1924), Distinguished Professor Emeritus of Orthopedic Surgery
- GISH, CHARLES W., D.D.S. (Indiana University, 1949), M.S.D. (1960), Co-Chairman of the Department of Community Dentistry; Assistant Professor of Pedodontics, and Consultant in Public Health Dentistry (School of Dentistry)
- GLOVER, JOHN L., M.D. (Vanderbilt University, 1958), Assistant Professor of Surgery
- GRIEF, JOHN A., M.D. (University of Michigan, 1962), Associate Professor of Clinical Pathology
- HAGAR, MRS. MARY C., R.N. (Miami Valley Hospital, Dayton, Ohio, 1929), R.P.T. (1946), Lecturer in Physical Therapy, and Coordinator of Physical Therapy, Long Hospital
- HALL, WILLIAM S., B.S. (University of Pennsylvania, 1933), J.D. (Indiana University, 1951), Lecturer in Medical Jurisprudence
- HARRIS, LINKA K., M.S.Ed. (Indiana University, 1969), Instructor in Dietetics
- HART, SUSAN, M.S. (Purdue University, 1969), Assistant Professor of Dietetics
- HEFNER, MRS. MARCEA, B.S. (Indiana University, 1966), R.R.L. (1966), Clinical Instructor in the Medical Records Program
- HELMEN, CHARLES H., M.D. (Indiana University, 1953), Director of Radiologic Technology, and Professor of Radiology
- HERRON, MRS. LINDA, A.S., R.T. (Indiana University, 1965), Teaching Associate in Radiologic Technology
- HERT, ORAL H., B.S. (Purdue University, 1948), Lecturer in Public Health
- HICKS, EDWARD J., Ph.D. (University of Iowa, 1969), Assistant Professor of Clinical Pathology
- HINE, MAYNARD K., D.D.S. (University of Illinois, 1930), M.S. (1932), Chancellor of Indiana University - Purdue University at Indianapolis; Professor of Periodontics (School of Dentistry)
- HOCKER, NARCISSA, M.S. (Indiana University, 1964), M.T. (ASCP, BB, 1945), Instructor in Immunohematology
- HOOVER, CHARLES, R.T., Teaching Associate in Radiologic Technology
- HOPPER, SAMUEL H., Ph.D. (Massachusetts Institute of Technology, 1937), Chairman of the Executive Committee of the Department of Preventive Medicine; Director of Public Health Administration and Education, and Professor of Public Health
- HORNBACK, NED B., M.D. (University of Wisconsin, 1956), Professor of Radiology
- HUBBARD, JESSE D., M.D. (Johns Hopkins University, 1951), Professor of Pathology
- IRWIN, GLENN W., JR., M.D. (Indiana University, 1944), Dean of the School of Medicine, and Professor of Medicine
- IRWIN, LOUISE, M.S. (Purdue University, 1950), Director, and Professor of Dietetics
- JONES, ELIZABETH A., M.S. (Indiana University, 1949), M.P.H. (University of Michigan, 1965), Lecturer in Public Health
- JUMP, ROBERT L., B.P.S. (Purdue University, 1955), Lecturer in Public Health
- JUNG, DAVID, Ph.D. (Indiana University, 1935), Assistant Professor of Clinical Pathology
- KEHREIN, SUETTA, R.T., B.S. (Indiana University, 1970), Associate Director of Radiologic Technology, and Instructor of Radiology
- KEPPLER, JOHN F., B.S. (Purdue University, 1938), Lecturer in Public Health
- KOEHNKE, ANITA, B.S. (Washington University, 1956), R.P.T. (1948), Lecturer in Physical Therapy, and Supervisor of the Physical Therapy Unit, Riley Hospital
- KORTRIGHT, NANCY S., B.S. (Indiana University, 1969), C.T. (ASCP, 1965), Lecturer in Cytotechnology
- KOSS, JOSEPH A., B.S. (University of Wisconsin, 1964), Co-Director, and Assistant Professor in Respiratory Therapy
- LACY, MARY ANN, A.B. (College of St. Scholastica, 1954), R.R.L. (1954), Director, and Assistant Professor in the Medical Records Program
- LADUE, RUTH, A.M. (Stanford University, 1966), R.P.T. (1945), Instructor in Physical Therapy

- LEE, WIE-SHING, Ph.D. (Indiana University, 1966), Instructor in Clinical Pathology
- LEHMAN, RACHEL M., B.S. (Indiana State University, 1929), M.T. (ASCP, 1936), Instructor in Medical Technology
- LEININGER, VERNON E., Ph.D. (Purdue University, 1968), Assistant Professor of Radiology
- LIFSEY, LINDA, B.S. (University of Tennessee, 1965), Instructor in Dietetics
- LOEHR, WILLIAM M., M.D. (University of Louisville, 1935), Professor of Radiology
- LoSASSO, ALVIN M., M.D. (The Ohio State University, 1963), Director of the Respiratory Therapy Program, and Assistant Professor of Anesthesiology
- MCCOWEN, MAX C., M.S. (Indiana State University, 1938), Lecturer in Public Health
- MCDONALD, RALPH E., D.D.S. (Indiana University, 1944), M.S. (1951), Dean of the School of Dentistry; Chairman, and Professor of Pedodontics (School of Dentistry)
- MCLEES, MRS. JOAN, M.S. (University of Iowa, 1956), Assistant Professor of Dietetics
- MCLELLAND, MALCOLM J., M.S. (Indiana University, 1941), Lecturer in Public Health
- MAGEE, MARION R., A.M. (Smith College, 1961), R.P.T. (1956), Assistant Professor of Physical Therapy
- MALLETTE, JOYCE E., B.S. (Indiana University, 1968), M.T. (ASCP, 1968), Lecturer in Medical Technology
- MANION, MARLOW W., M.D. (Indiana University, 1926), Professor of Otolaryngology
- MATLOCK, JAMES F., D.D.S. (Indiana University, 1943), M.S.D. (1962), Assistant Professor of Radiology (School of Dentistry)
- MATTHEWS, WILLIAM M., M.D. (Indiana University, 1946), Associate Professor of Anesthesiology
- MILLER, JERRY, M.D. (Temple University, 1947), Professor of Anesthesiology
- MILLER, M. DEVON, M.S. (Indiana University, 1966), Instructor in the Medical Records Program
- MILLER, R. E., M.D. (Indiana University, 1951), Professor of Radiology
- MINTON, SHERMAN A., JR., M.D. (Indiana University, 1942), Professor of Microbiology
- MISHKIN, FREDERICK S., M.D. (University of Chicago, 1962), Associate Professor of Radiology
- MITCHELL, RUTH U., Ph.D. (Case Western Reserve University, 1970), R.P.T. (1954), Associate Professor of Physical Therapy
- MOOREHEAD, WELLS R., Ph.D. (University of Tennessee, 1965), Associate Professor of Clinical Pathology
- MORROW, JAMES R., M.S. (Indiana University, 1970), R.P.T. (1965), Instructor in Physical Therapy
- MOSER, MICHAEL, R.T. (Indiana University, 1967), Lecturer in Radiologic Technology
- NATHAN, CAROL, A.M. (University of Southern California, 1968), O.T.R. (1958), Director of the Occupational Therapy Program, and Assistant Professor of Occupational Therapy
- NIE, DIEDRE, A.B. (Connecticut College for Women, 1966), O.T.R. (1958), Instructor in Occupational Therapy
- NOLAN, MRS. ANNA J., R.R.L. (1941), Lecturer in Medical Records, and Medical Records Librarian
- NORDSCHOW, CARLETON, M.D. (University of Iowa, 1953), Ph.D. (University of Iowa, 1964), Director of Medical Technology, Chairman and Professor of Clinical Pathology
- NORMAN, RICHARD D., D.D.S. (Indiana University, 1958), M.S.D. (1964), Associate Professor of Dental Materials (School of Dentistry)
- OEL, TJEN O., M.D. (University of Indonesia, 1958), Assistant Professor of Clinical Pathology
- OFFUTT, ANDREW C., M.D. (Indiana University, 1940), LL.D. (Franklin College, 1957), Assistant Professor of Public Health
- PHILLIPS, RALPH W., M.S. (Indiana University, 1955), Assistant Dean for Research, and Research Professor of Dental Materials
- PING, RONALD S., D.D.S. (Indiana University, 1941), Chairman, and Associate Professor of Oral Surgery (School of Dentistry)
- PROKSCH, GARY J., Ph.D. (University of Iowa, 1970), Assistant Professor of Clinical Pathology

- RAIDT, HAROLD, M.S. (University of Kentucky, 1934), Professor of Microbiology (School of Medicine, School of Dentistry, Graduate School)
- REESE, ISAAC C., M.S. (University of Rochester, 1961), Assistant Professor of Radiology (Nuclear Medicine)
- RIDLEY, ELTON, M.B.A. (University of Chicago, 1952), Director of Hospitals, and Associate Professor of Hospital Administration
- RIEKENA, JOHN, B.S. (University of Puget Sound, 1961), O.T.R. (1961), Lecturer in Occupational Therapy, and Director of Prevocational Evaluation, Crossroads Rehabilitation Center, Indianapolis
- ROESCH, RYLAND P., M.D. (Indiana University, 1948), Associate Professor of Anesthesiology
- SCHULTHEIS, RICHARD L., M.D. (Indiana University, 1960), J.D. (Indiana University, 1967), Assistant Professor of Law (Indianapolis); Assistant Professor of Preventive Medicine (School of Medicine, Medical Records Program)
- SHAFFER, WILLIAM G., D.D.S. (The Ohio State University, 1947), M.S. (University of Rochester, 1949), Chairman, and Professor of Oral Pathology (School of Dentistry, Graduate School); Professor of Oral Pathology (General Pathology) (School of Medicine)
- SHANKS, JAMES C., JR., Ph.D. (Northwestern University, 1957), Clinical Director of Speech Pathology Services, and Professor of Speech Pathology (Otorhinolaryngology and Bronchoesophagology)
- SIMEK, MRS. ERNA, A.M. (Washington University, 1954), O.T.R. (1944), Assistant Professor of Occupational Therapy
- SMITH, DONALD E., M.B.A. (University of Chicago, 1963), Associate Director of Hospitals, and Assistant Professor of Hospital Administration
- SMITH, JAMES W., M.D. (University of Iowa, 1959), Professor of Clinical Pathology
- SNIDER, RICHARD T., Ph.D. (University of Houston, 1966), Assistant Professor of Clinical Psychology (Psychiatry)
- SOLOW, ELIZABETH B., M.S. (Indiana University, 1962), Instructor in the Division of Neurological Surgery (Surgery)
- SPLYAR, LOUIS W., M.D. (Indiana University, 1936), Assistant Professor of Public Health
- STANDISH, SAMUEL M., D.D.S. (Indiana University, 1945), Chairman, Division of Clinical Oral Pathology, and Professor of Oral Pathology (School of Dentistry, Graduate School)
- STARKEY, PAUL E., D.D.S. (Indiana University, 1943), Chairman, Division of Clinical Pedodontics, and Professor of Pedodontics (School of Dentistry)
- STITES, WILLIAM, R.T. (Fort Sam Houston, San Antonio, Texas, 1965), Teaching Associate in Radiologic Technology
- STOUT, JUDITH A., B.S. (Indiana University, 1970), Instructor in Dental Hygiene (School of Dentistry)
- SUMMERS, WILLIAM A., Ph.D. (Tulane University of Louisiana, 1940), Professor of Microbiology (School of Medicine, School of Dentistry, Graduate School)
- SWARTZ, MARJORIE L., M.S. (Indiana University, 1959), Professor of Dental Materials (School of Dentistry)
- SWENSON, HENRY M., D.D.S. (University of Illinois, 1942), Chairman of the Division of Clinical Periodontics, and Professor of Periodontics (School of Dentistry)
- TOMICH, CHARLES E., D.D.S. (Loyola University (New Orleans), 1961), Assistant Professor of Oral Pathology (School of Dentistry)
- TOTTEN, MRS. CARLA J., B.S. (Indiana University, 1967), R.D.H. (1955), Clinical Supervisor, and Instructor in Dental Hygiene (School of Dentistry)
- VAN HUYSEN, GRANT, D.D.S. (University of Pennsylvania, 1925), Chairman, and Professor of Oral Anatomy (School of Dentistry)
- VAN NESS, ADA M., M.S. (The Ohio State University, 1963), Assistant Professor of Dietetics
- WEBSTER, RICHARD C., Ph.D. (University of Kansas, 1949), Associate Professor of Anatomy (School of Medicine, School of Dentistry, Graduate School)
- WEEKS, MRS. ZONA R., B.S. (University of Wisconsin, 1958), O.T.R. (1959), Instructor in Occupational Therapy
- WILSON, ARLENE M., M.S. (Purdue University, 1957), Director of Hospital Dietary Technology, and Professor of Dietetics

- WILSON, VIRGINIA M., Ed.M. (Boston University, 1952), R.P.T. (1946), Assistant Professor of Physical Therapy
- WRIGHT, RICHARD C., B.S. (Oswego State Teachers College, 1950), O.T.R. (1954), Assistant Professor of Occupational Therapy
- YOHO, ROBERT O., A.M. (Indiana University, 1939), H.S.D. (1957), Instructor in Public Health (School of Medicine, School of Dentistry)
- YOUNG, M. KATHRYN, A.M. (University of Michigan, 1937), R.P.T. (1946), Assistant Professor of Physical Therapy
- YOUNG, MILDRED, M.S. (Butler University, 1966), M.T. (ASCP, 1942), Instructor in Hematology

BEECH GROVE

- BRAGDON, MRS. DOROTHY A., B.S. (Lander College, 1963), M.T. (ASCP, 1963), Lecturer in Medical Technology
- BUEHL, ISABELLE A., M.D. (Indiana University, 1959), Assistant Professor of Pathology
- CHARNLEY, JUDITH, B.S. (Ball State University, 1954), M.T. (ASCP, 1955), Lecturer in Medical Technology
- CLARK, MRS. ELIZABETH ANN, M.T. (ASCP, 1942), Lecturer in Medical Technology
- COSTIN, ROBERT L., M.D. (Indiana University, 1956), Director, and Assistant Professor of Pathology
- HANNA, MRS. BETTYLYN M., B.S. (Indiana University, 1959), M.T. (ASCP, 1959), Lecturer in Medical Technology
- LEA, MRS. MARILYN L., B.S. (Morgan State College, 1957), M.T. (ASCP, 1962), Lecturer in Medical Technology
- ROBERTSEN, JOHN A., B.S. (University of Wisconsin, 1952), M.S. (University of Wisconsin, 1956), Ph.D. (University of Wisconsin, 1958), Instructor in Medical Technology
- ROBERTSON, MRS. EMILY K., A.B. (Macalester College, 1947), M.T. (ASCP, 1952), Lecturer in Medical Technology
- THORNTON, MRS. PHYLLIS J., B.S. (Indiana University, 1962), A.M. (Howard University, 1969), M.T. (ASCP, 1962), Education Coordinator, and Instructor in Medical Technology
- TRINKLE, KAREN A., B.S. (Indiana University, 1969), M.T. (ASCP, 1969), Lecturer in Medical Technology
- UTKE, MRS. EVELYN M., A.B. (University of North Carolina at Greensboro, 1943), M.T. (ASCP, 1957), Lecturer in Medical Technology

FORT WAYNE

- O'SHAUGHNESSY, PHILLIP E., D.D.S. (Indiana University, 1960), Assistant Director of Dental Hygiene; Consultant in Oral Diagnosis; and Assistant Director of the Auxiliary Programs at Indiana University at Fort Wayne (School of Dentistry)
- SCHIMMELE, RALPH G., D.D.S. (Indiana University, 1952), Director of the Dental Auxiliary Programs on the Regional Campuses; Associate Professor of Dental Hygiene; and Consultant in Fixed and Removable Partial Prosthodontics (School of Dentistry)

Lutheran Hospital

- ALDRED, ALLEN W., M.D. (Indiana University, 1953), Assistant Professor of Pathology
- AUST, CHARLES H., M.D. (Indiana University, 1953), Assistant Professor of Pathology
- GRIEST, WALTER D., M.D. (University of Cincinnati, 1944), Director, and Assistant Professor of Pathology

Parkview Memorial Hospital

- BORCHERDING, WAYNE, B.S. (Indiana University, 1968), M.T. (ASCP, 1968), Lecturer in Medical Technology
- FRANKHOUSER, CHARLES, M.D. (State University of New York, 1950), Assistant Professor of Pathology
- RANSBERG, ROBERT C., M.D. (Indiana University, 1962), Assistant Professor of Pathology

- SCHLADEMAN, KARL R., M.D. (Northwestern University, 1942), Director, and Assistant Professor of Pathology
SCHWARTZ, SAM, B.S. (Purdue University, 1956), Cert. Microbiology (1965), Lecturer in Medical Technology
WILSON, STEPHANIE P., B.S. (Briar Cliff College, 1967), M.T. (ASCP, 1968), Teaching Supervisor and Lecturer in Medical Technology

St. Joseph's Hospital

- AMSTUTZ, MRS. JOANN, M.T. (ASCP, 1959), Lecturer in Medical Technology
BROOKS, MRS. GRACE, H.T. (ASCP, 1954), Lecturer in Medical Technology
PAN, CHARLES M., M.D. (National Taiwan University, China, 1953), Assistant Professor of Pathology
RUMSCHLAG, DONALD R., B.S. (St. Francis College, Indiana, 1962), M.T. (ASCP, 1960), Teaching Supervisor, and Lecturer in Medical Technology
SCHNEIDER, LOUIS, M.D. (New York University, 1940), Director, and Assistant Professor of Pathology

GARY

Methodist Hospital

- BERNDT, CHARLOTTE, B.S. (Valparaiso University, 1965), M.T. (ASCP, 1966), Lecturer in Medical Technology
CHAMBERLAIN, CHARLENE, M.S. (North Texas State University, 1970), M.T. (ASCP), Instructor in Medical Technology
CUSTODIO, ALEXANDER O., M.D. (University of Santa Tomas, 1957), Associate Pathologists
HAN, DANIEL, M.D. (National Honan University, China, 1949), Associate Director, and Pathologist
HANAUER, A. JEANNE, M.S., M.T. (ASCP, 1948), Teaching Supervisor
JOHNSON, MARTHA, M.T. (ASCP, 1940), Lecturer in Medical Technology
LOH, WEI-PING, M.D. (National Medical College of Shanghai, China, 1946), M.P.H. (University of Michigan, 1950), Ph.D. (Boston University, 1954), Director, and Chief Pathologist, Methodist Hospital of Gary, Inc.; Associate Professor of Pathology, Chicago Medical School
LUTTINEN, THELMA, A.B. (Olivet College, 1935), M.T. (ASCP, 1938), Lecturer in Medical Technology
MCBRIDE, DEANE, M.T. (ASCP, 1933), Lecturer in Medical Technology
MARSHALL, HELEN, B.S. (Marian College, Indiana, 1967), M.T. (ASCP, 1967), Lecturer in Medical Technology
SOHANEY, JOAN, M.S. (Valparaiso University, 1970), M.T. (ASCP, 1959), Teaching Coordinator, and Instructor in Medical Technology
STARKEY, GORDON, M.T. (ASCP, 1948), M.S. (University of West Virginia, 1949), Lecturer in Medical Technology

St. Mary Mercy Hospital

- BLASTICK, RITA, A.M. (University of Notre Dame, 1970), M.T. (ASCP, 1964), Teaching Supervisor, and Instructor in Medical Technology
CABRERA, P. B., M.D. (University of Santo Tomas, Philippines, 1955), Associate Director, and Pathologist
CAPLIS, MICHAEL E., Ph.D. (Purdue University, 1970), Instructor in Medical Technology
DEMITROULAS, SUE, A.B., M.T. (Columbia University, 1940), Lecturer in Medical Technology
EDGE, JAMES H., M.S. (The Ohio State University, 1961), M.T. (ASCP, 1958), Instructor in Medical Technology
LIBER, MARIA, B.S. (Heidelberg University, Germany, 1947), M.T. (ASCP, 1965), Lecturer in Medical Technology
MARTIN, OLIVE, H.T. (ASCP), Lecturer in Medical Technology
MASON, EARL J., M.D. (Case Western Reserve University, 1954), Director of the School of Medical Technology, and Pathologist

- MASON, EILEEN, B.S. (Purdue University, 1965), M.T. (ASCP, 1966), Lecturer in Medical Technology
- SNYDER, FRANK, B.S. (Northern Arizona University, 1969), M.T. (ASCP, 1968), Instructor in Medical Technology
- SWIERCZEWSKI, JOHN, M.S. (University of Connecticut, 1964), Instructor in Medical Technology
- TRIANA, MILTON, B.S. (St. Joseph's College, 1969), M.T. (ASCP, 1970), Lecturer in Medical Technology

INDIANAPOLIS

Methodist Hospital

- BHATTI, MARTHA, Ph.D. (Purdue University, 1968), Lecturer in Medical Technology
- CLAPP, PATRICIA, H.T. (ASCP, 1967), Medical Technologist
- CLEMONS, MARLENE, H.T. (ASCP, 1958), C.T. (ASCP, 1960), Instructor in Histologic Technique and Cytotechnology
- DRIVER, ROBIENETTA, A.B. (Lincoln University, 1949), M.T. (ASCP, 1961), Teaching Supervisor, and Medical Technologist
- ERTEL, JOYCE, A.B. (Franklin College, 1965), M.T. (ASCP, 1966), Medical Technologist
- EVANS, PAUL V., M.D. (Indiana University, 1940), Pathologist
- FINCH, DORIS, A.B. (Defiance College, 1934), B.B. (ASCP, 1954), Lecturer in Medical Technology
- GERMAN, RUTH, B.S. (Purdue University, 1933), M.T. (ASCP, 1935), Medical Technologist
- GREENLAND, EMILY, A.B. (Western College, 1947), M.T. (ASCP, 1950), Lecturer in Medical Technology
- HART, CAROLINE, B.S. (Bennett College, 1963), M.T. (ASCP, 1964), Medical Technologist
- HAZELRIGG, CHERYL, B.S. (Butler University, 1967), M.T. (ASCP, 1967), Medical Technologist
- HOYT, LESTER H., M.D. (University of Iowa, 1937), Director, and Pathologist
- HURTEAU, WILLIAM W., M.D. (University of Iowa, 1937), Pathologist
- KITTS, ELLEN, B.S. (Ball State University, 1969), Lecturer in Medical Technology
- MACKENZIE, J. ROSS, M.D. (University of Aberdeen, Scotland, 1946), Pathologist
- NILES, BEVERLY, B.S. (Ball State University, 1969), Lecturer in Medical Technology
- PERKINS, KATHRYN, B.S. (Ball State University, 1941), M.T. (ASCP, 1948), Lecturer in Medical Technology
- PONTIUS, EDWIN E., M.D. (Indiana University, 1952), Associate Professor of Pathology (School of Medicine)
- REISER, SHELDON, Ph.D. (University of Wisconsin, 1959), Associate Professor of Experimental Medicine and of Biochemistry (School of Medicine, Graduate School)
- SALYERS, BEVERLY, B.S. (Purdue University, 1968), M.T. (ASCP, 1968), Medical Technologist
- SCHLENDER, EMMA, M.S. (University of Michigan, 1934), M.T. (ASCP, 1935), Medical Technologist
- SCHULZ, DALE M., M.D. (Washington University, 1949), Director of Autopsy Service and Histopathology Laboratories; Clinical Professor of Pathology (School of Medicine, Graduate School)
- SLIFER, E. DOYLE, Ph.D. (University of Illinois, 1955), M.D. (University of British West Indies, 1968), Pathologist
- SMITH, DAVID E., M.D. (University of Texas, 1963), Pathologist
- STELLE, BARBARA, A.M., (Indiana University, 1936), M.T. (ASCP, 1943), Lecturer in Medical Technology
- TRIPP, PHOEBE, A.M. (Ball State University, 1951), Registered Chemist (ASCP, 1958), Medical Technologist

St. Vincent's Hospital

- AHERN, DIANNE, B.S. (Marian College, 1965), M.T. (ASCP, 1965), Medical Technologist

- CARD, WILLIAM H., M.D. (University of Wisconsin, 1954), Pathologist
CARTER, JANET MILLER, B.S. (Culver-Stockton College, 1968), M.T. (ASCP, 1968), Instructor of Medical Technology
EISELE, PAUL, M.D. (Indiana University, 1968), Pathologist
FOSTER, LEE N., M.D. (Northwestern University, 1943), Pathologist
HESSONG, ALAN, Instructor of Medical Technology
HILL, MRS. JOANNE, B.S. (University of Iowa, 1967), M.T. (ASCP, 1966), Medical Technologist
LEONARD, DENNIS, B.S. (Marian College, Indiana, 1965), M.T. (ASCP, 1966), Medical Pathologist
MILLER, SAMUEL D., A.B. (Greenville College, 1966), M.T. (ASCP, 1967), Instructor of Medical Technology
MULLER, VICTOR H., M.D. (Indiana University, 1951), Pathologist
O'BRIEN, DAVID, M.D. (Indiana University, 1968), Pathologist
PETERS, DAVID, A.B. (Greenville College, 1962), M.T. (ASCP, 1962), Medical Technologist
STANLEY, ANNAMAE, B.S. (Indiana State University, 1965), M.T. (ASCP, 1965), Instructor of Medical Technology
SULLIVAN, JAMES J., M.D. (Indiana University, 1953), Pathologist
SUTHERLAND, MILDRED, H.T. (ASCP, 1970), Instructor of Medical Technology
WHITE, THEODOSIA, B.S. (Indiana University, 1951), M.T. (ASCP, 1951), Educational Coordinator and Instructor of Medical Technology

KOKOMO

St. Joseph Memorial Hospital

- FIELDS, ROBERT E., M.T. (ASCP, 1951); B.B. (ASCP, 1951), Medical Technologist
HARLOW, SANDRA, B.S. (Ball State University, 1969), M.T. (ASCP, 1969), Medical Technologist
HARSHMAN, JAMES A., M.D. (Indiana University, 1955), Pathologist
PARKER, MARGARET, C.T. (ASCP, 1962), Medical Technologist
RUDICEL, MAX W., M.D. (Indiana University, 1943), Pathologist
SELLEY, MARY ANN, B.S. (Indiana University, 1966), M.T. (ASCP, 1966), Medical Technologist
WALL, MRS. CONSTANCE, B.S. (Syracuse University, 1949), M.T. (ASCP, 1949), Teaching Supervisor, and Medical Technologist
WARNOCK, JEANNE, B.S. (Ball State University, 1965), M.T. (ASCP, 1965), Medical Technologist
WOLFE, MARTHA, H.T. (ASCP, 1961), Medical Technologist

SOUTH BEND

South Bend Medical Foundation

- ACKART, THOMAS E., (University of Notre Dame, 1964), Lecturer in Medical Technology
BAHLER, JAMES W., M.S. (Purdue University, 1950), Instructor in Medical Technology
BENNETT, JENE RICHARD, M.D. (Indiana University, 1940), Director, and Assistant Professor of Medical Technology
BERNDT, JOAN GRACE, B.S. (St. Mary's College, Indiana, 1965), Lecturer in Medical Technology
BUSLEE, ROGER M., M.D. (University of Michigan, 1953), Assistant Professor of Medical Technology
BYERS, BETTY JEAN, B.S. (Indiana University, 1948), M.T. (ASCP, 1948), Lecturer in Medical Technology
FAWCETT, KENNETH J., M.D. (University of Michigan, 1961), Assistant Professor of Medical Technology
FUTTERKNECHT, CAROL, B.S. (St. Mary's College, 1962), M.T. (ASCP, 1962), Lecturer in Medical Technology

- GALUP, LUIS NEMESIO, M.D. (Universidad Nacional Mayor de San Marcos, Peru, 1963), Assistant Professor of Medical Technology
- GODERSKY, LOIS GARNET, M.D. (Indiana University, 1942), Assistant Professor of Medical Technology
- GOODHEW, CAROL M., A.B. (St. Mary's College, Indiana, 1967), Lecturer in Medical Technology
- HAGAN, BERNADINE, M.S. (University of Illinois, 1937), M.T. (ASCP, 1938), Instructor in Medical Technology (Education Coordinator)
- HATHWAY, STEPHEN, M.D. (Indiana University, 1968), Instructor in Medical Technology
- HEET, ALOYSIOUS H., Lecturer in Medical Technology
- HEET, DOROTHY T., M.T. (ASCP, 1951), Lecturer in Medical Technology
- KOLASKINSKI, KATHLEEN, B.S. (Mary Manse College, 1962), Lecturer in Medical Technology
- KOZAK, CATHERINE M., Ph.D. (University of Notre Dame, 1969), Instructor in Medical Technology
- LOW, EUGENE, M.D. (University of Utah, 1968), Instructor in Medical Technology
- LUST, DORIT E., B.S. (Indiana University, 1949), Lecturer in Medical Technology
- MARKEY, RAYMOND L., Lecturer in Medical Technology
- MOSKOWSKI, FLORIAN H., H.T. (ASCP, 1964), Lecturer in Medical Technology
- PASCUZZI, CHRIS A., M.D. (Creighton University, 1950), Assistant Professor of Medical Technology
- REED, ROBERT G., JR., M.D. (Indiana University, 1951), Instructor in Medical Technology
- SISSON, NORVEL D., M.D. (University of Minnesota, 1952), Assistant Professor of Medical Technology
- STRAUP, NEWTON F., M.S. (University of Notre Dame, 1967), Instructor in Medical Technology
- WENDLAND, PHYLLIS E., M.T. (ASCP, 1950), Lecturer in Medical Technology
- WILSON, ERIC, M.D. (Indiana University, 1968), Instructor in Medical Technology
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- HAMANT, CELESTINE, A.B. (St. Mary-of-the-Woods College, 1962), O.T.R. (1963), Supervisor of Occupational Therapy Unit, Riley Hospital
- HASLER, DIANE, B.S. (Indiana University, 1964), R.R.L., Chief Medical Record Librarian, Lutheran Hospital, Fort Wayne
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- MILLER, BARBARA, B.S. (Indiana University, 1968), R.R.L., Chief Medical Record Librarian, Indiana University Hospital, Indianapolis
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- NAIL, MRS. JOAN, B.S. (Indiana University, 1966), O.T.R. (1966), Children's Service, LaRue D. Carter Memorial Hospital, Indianapolis
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- SAILOR, MRS. JANET, R.R.L., Chief Medical Record Librarian, Lutheran General Hospital, Park Ridge, Illinois
- SCOTT, MRS. DONNA, B.S. (Indiana University, 1964), R.R.L., Chief Medical Record Librarian, Veteran's Administration Hospital, Indianapolis
- SLOMINSKI, ANITA, B.S. (Indiana University, 1944), O.T.R. (1946), Coordinator, Cerebral Palsy Clinic, Medical Center, Indianapolis
- SWAN, MRS. MARLENE, B.S. (Western Michigan University, 1958), O.T.R. (1959), Children's Unit, Central State Hospital, Indianapolis
- VAN ALSTINE, MRS. CYNTHIA, R.R.L. (Indiana University, 1969), Chief Medical Record Librarian, St. Francis Hospital, Beech Grove, Indiana
- VERDERBER, JACQUELINE, A.B. (Marietta College, 1963), O.T.R. (1965), Occupational Therapist, Riley Hospital, Indianapolis
- WADDY, MRS. KATHERINE, Chief Medical Record Librarian, Community Hospital, Indianapolis
- WALLACE, JUNE, R.R.L., Chief Medical Record Librarian, Wesley Memorial Hospital, Chicago, Illinois
- WISSING, MRS. FRANKIE, B.S. (Indiana University, 1967), O.T.R. (1967), Director of Occupational Therapy, Community Hospital, Indianapolis
- YODER, MRS. CATHERINE, B.S. (Western Michigan University, 1954), O.T.R. (1954), Director, Occupational Therapy, Central State Hospital, Indianapolis

Academic Record

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