School of Dentistry

Indiana University

Bulletin 1972-73

INDIANA UNIVERSITY

Academic Programs in

★College of Arts and Sciences ★Division of Optometry

School of Business

Division of Continuing Education†

★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

*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

★University Division

Bulletins for most of the above divisions of the University (marked \bigstar) 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.

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

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

INDIANA UNIVERSITY SCHOOL OF DENTISTRY

Indiana University - Purdue University at Indianapolis

INDIANA UNIVERSITY BULLETIN 1972/73

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INDIANA UNIVERSITY BULLETIN (OFFICIAL SERIES)

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Calendars

Bloomington

1971-72

1972-73

First Semester

and counseling (for
University Division, transfer,
and graduate students)Aug. 24, T. 9 a.mAug. 22, T. 9 a.m.
Registration and counseling
Classes begin
Labor Day recess
Midterm reports dueOct. 22, F. 5 p.mOct. 20, F. 5 p.m.
Thanksgiving recess begins
(after last class)Nov. 23, TNov. 21, T
Classes resume
Classes end
Departmental exams begin
Departmental exams end

New student orientation

Second Semester

New student orientation
and counseling (for
University Division, transfer,
and graduate students) Ian, 11, T, 9 a.m. Jan, 9, T, 9 a.m.
Registration and counselingJan. 12, 13, 14, 15; W. Th, F, SJan. 10, 11, 12, 13; W. Th, F, S
Classes begin
Midterm reports due
Spring recess begins
(after last class) March 11, S. March 10, S
Classes resume
Founders Day*
Classes end
Departmental exams begin
Departmental exams end
Commencement

Summer, 1972

	First Summer Session		
Counsel	ling	15,	M
Registra	ation	15,	M
Classes	beginMay	16,	T
Classes	endJune	22,	Th

	Intensive	Session	I			
Counsel	ing		May	15,	M	
Registra	ation		May	15,	M	
Classes	begin		May	16,	T	
Classes	end		June	1,	Th	

In	tensi	ve	Session	п
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Counsel	ing	June	9,	F
Registra	ation	June	9,	F
Classes	begin	June	10,	S
Classes	end	June	24,	S

Second Summer Session

CounselingJune	23, 24; F, S
RegistrationJune	23, 24; F, S
Classes beginJune	26, M
Independence Day(s) recessJuly 3	3, 4; M, T
Classes end	18. F

Intensive Session III

Classes	begin		June	26, M	
Indepen	dence Day(s)	recess	July	3, 4; M,	T
Classes	end		July	14, F	

Intensive Session IV‡

Classes	beginJuly	17, 1,	M
Classes	endAug.		T
	Intensive Session V		

Classes begin. Classes end.

9:30, 10:30, 11:30, and 12:30 classes do not meet.
† Three Saturday class meetings necessary in this session.
‡ One Saturday class meeting necessary in this session.

Calendar, 1972-73

School of Dentistry, Medical Center Campus

Summer Session, 1972

Summer Session begins, 8:30 a.m	15, M	
Independence Day-School closedJuly	4, T	
Summer Session ends, 4:30 p.mJuly	21, F	

First Semester

Registration for all dental hygiene students and graduate studentsAug.	22,	T				
Classes begin for all students	23,	W				
Labor Day HolidaySept.	4,	M				
Dental Alumni Days (Bloomington-classes as usual)	21,	22,	23;	Th,	F,	S
Thanksgiving Recess begins, 5 p.mClinics closed	21,	T				
Thanksgiving Recess ends, 8 a.mClinics openNov.	27,	M				
Final examinations begin	12,	Т				
Final examinations end	18,	M				
Semester ends	20,	W				

Second Semester

Registration for dental hygiene students and graduate students	.Jan. 10, W
Classes begin for all students	Jan. 11, Th
Spring recess begins for all students, 5 p.m	"March 5, M
Spring recess ends for all students, 8 a.m.	March 12, M
Final examinations begin	May 3, Th
Final examinations end	May 9, W
Semester ends, 5 p.m.	May 11, F
Commencement	To be announced

Summer Session, 1973

(tentative)

Summer Session begins, 8 a.m	14,	M
Memorial Day-HolidayMay	28,	M
Summer Session ends, 5 p.mClinics closedJuly	20,	F

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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 eighth largest university in the nation in terms of total enrollment. The University, with a faculty exceeding 3,000, meets the needs of approximately 59,000 full- and part-time students with 5,000 courses of instruction in more than 100 departments. Its graduate divisions offer 36 advanced degrees in 62 areas.

Students from all fifty states and from many foreign nations are enrolled on its eight campuses. Indiana University 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 six regional 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 have been constructed for the Downtown Campus Programs. The new Indianapolis Law School moved into its new facility September 9, 1970. 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, and the Herron School of Art.

The regional campuses of the University are Indiana University, East, Richmond; Indiana University at Fort Wayne; Indiana University Northwest, Gary; Indiana University Southeast, Jeffersonville-New-Albany; Indiana University at Kokomo; and Indiana University at South Bend.

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

Libraries. In summer, 1969, Indiana University opened its new \$15-million University Library. The completely air-conditioned building is divided into three main areas: a five-floor west tower in which the Undergraduate Collections are shelved; a twelve-floor east tower in which the General Collections are housed on stack floors; and a general services area underlying and connecting the two towers. Other features of the new building include 900 individual study carrels, numerous faculty studies and seminar rooms, smoking lounges, temporary lockers, a cafeteria-snack bar, and offices and classrooms of the Graduate Library School. Approximately half of the University's collection of more than five million volumes is located in the University Library. The other volumes are conveniently distributed in reading rooms and departmental libraries (Anatomy-Physiology, Biology, Business, Chemistry, Education, Fine Arts, Geology, Law, Music, Optometry, and Physics-Mathematics-Astronomy); in the Lilly Library for special collections and rare books; in the libraries at the other Indiana University campuses; and in housing units in the Halls of Residence system on the Bloomington campus.

The School of Dentistry

A member of the American Association of Dental Schools and fully accredited by the Council on Dental Education of the American Dental Association, the School of Dentistry is located in Indianapolis and is an integral part of the University's Medical Center. Graduates are currently practicing in all of the fifty states and most of the countries of the world.

Through the facilities of Indiana University several programs of study at the undergraduate level are available to persons interested in pursuing a career in dentistry. In addition to a program for dental assistants at Indiana University at Fort Wayne, a twoyear certificate program or a four-year degree program for dental hygienists at Indianapolis and on the Fort Wayne campus, and the D.D.S. degree awarded by the School of Dentistry, it is also possible to earn an A.B. degree, offered in cooperation with the College of Arts and Sciences.

Additional information concerning any of these programs may be obtained by writing to the appropriate address as listed on the inside back cover.

Dental Library. The library, located in the School of Dentistry Building, contains 85,689 items, of which 30,270 are texts and volumes of periodicals encompassing all the areas of dentistry and several fields in the allied sciences, including medicine. The library currently receives 691 periodicals covering these subjects. Numerous gifts of books and periodicals are received from graduates and friends of the School. Dental students also have complete access to the excellent medical library of the School of Medicine.

Dental Clinics. Clinical facilities are excellent and patients are drawn from a population area of some 1,000,000 persons. The great variety of cases treated provide each student with abundant opportunity to perfect techniques. Last year the dental clinics served more than 15,000 persons.

The School also maintains dental clinics in Riley and Long Hospitals and the Rotary Building, all on the Medical Center campus, and dental students attend special clinics at LaRue D. Carter, General, and the Veterans Administration Hospitals.

In addition to the clinics which provide instruction for the dental student, members of the faculty are available for lectures and clinics before district and local dental societies and study clubs throughout the state.

The dental clinics remain open during most of the summer months, but no formal classes are held. Except for students on probation, attendance is not required, but junior and senior students are encouraged to attend to obtain additional clinical instruction and experience.

Living Facilities. Single and married students from all Indiana University Indianapolis schools and divisions are eligible to file housing applications for accommodations which are located on the Medical Center campus. Applications should be filed as early as possible since there is always a waiting list.

Accommodations for single men and women are available in the single student dormitory and in the connecting Union Building. Double-room rates are \$53.50 per month, and single rates are \$76 per month. Accommodations for single men are also available in the Winona Village temporary dormitory buildings at \$41 to \$54 per month per person.

Rates for apartments for married students vary from \$95 to \$131 per month (all utilities paid) for efficiency and one-bedroom type apartments, unfurnished and furnished, in the Warthin Apartment Building and the Union Building. Two-bedroom unfurnished apartments in Winona Village rent for \$68.50 per month (only for couples with children).

Rates are subject to change by action of the Trustees.

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Inquiries concerning University housing and requests for applications should be addressed to: Director of Housing, Indiana University Medical Center, 1100 West Michigan Street, Indianapolis, Indiana 46202. An Off-Campus Rental Information File is also located in the Medical Center Housing Office where interested persons may check the card file in person for rental listings.

Student Health Service. This service is available to students of the Schools of Medicine, Nursing, and Dentistry, of the Division of Allied Health Sciences and the Graduate School of Social Service, and of the Normal College of the American Gymnastic Union, 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 illnesses 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.

SCHEDULE OF FEES, 1972-73

Arts and Sciences and Dental Hygiene	Indiana Resident					Nonresident		
1st and 2nd year	\$20	per	credit	hour	\$40	per	credit	hour
Summer Session Undergraduate Graduate	\$20 \$25	per per	credit credit	hour hour	\$40 \$50	per per	credit credit	hour hour
*Dentistry	\$425	j per	r semes	ster	\$900) per	semes	ter
Regional Campuses Undergraduate Graduate	.\$20 .\$25	per per	credit credit	hour hour	.\$40 .\$50	per o	credit ł credit ł	10ur 10ur
†Admission Application	\$15				\$15			

FEE REFUND SCHEDULE (BLOOMINGTON AND MEDICAL CENTER CAMPUSES)

First and Second Semester	Refund for Full Withdrawal	Refund for Partial Withdrawal for Those Paying by the Credit Hour
1st week or until Class Change Day .	100%	100%
2nd and 3rd weeks	50% or all except \$50, whichever is larger	0%
Thereafter	0%	0%
Summer Sessions	Refund for Full Withdraw a l	Refund for Partial Withdrawal
1st week or until Class Change Day .	100%	100%
2nd week		0%
Thereafter	0%	0%

^{*} An advance payment of \$25 on fees is required after a student has been accepted. This advance payment is not returnable.

[†] This fee is paid only once, is not refundable and is not applied to other fees. A student applying for admission to the School of Dentistry who has never attended Indiana University as a regularly admitted student (on the Bloomington or any of the other Indiana University campuses) will be required to pay this fee. A money order or check must be sent in a special envelope provided for this purpose.

Expenses (in Addition	N TO FEES)		
First Year	Second Year	Third Year	Fourth Year
Dental Textbooks (approximate)\$140 *Dental Instruments (approximate) 525 Dental Hygiene Textbooks Instruments	\$190 950	\$130 400	\$15
and Uniforms (approximate) 406	108	See and	19

RULE DETERMINING RESIDENT AND NONRESIDENT STUDENT STATUS

This Rule establishes the policy under which students shall be classified as residents or nonresidents 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 shall take effect July 1, 1972; provided, that no person properly classified as a resident student before July 1, 1972, shall be adversely affected by this Rule, if he attended the University before that date and while he remains continuously enrolled in the University.

"Residence" as the term, or any of its variations, is used in the context of this Rule means the establishment of a permanent dwelling place within the State and the continued occupancy of such dwelling. A person entering the State from another state or country for the predominant purpose of attending an institution of higher education does not acquire residence for the purpose of this Rule. The fact that a person pays taxes and votes in the State does not result in the acquisition of residence as the term is used in this Rule.

- 1. A person shall be classified as a "resident student" if he has continuously resided in Indiana for at least twelve (12) months immediately preceding the first scheduled day of classes of the semester or other session in which the individual enrolls in the University; subject to the exception stated in paragraph 2.
 - 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 minor child will be considered a resident.
 - b. A minor 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. A person who otherwise would be deemed a nonresident shall not gain resident student status by reason of marriage; nor shall resident student status be lost by reason of marriage.
 - 2. A minor child shall be classified as a resident student without meeting the twelve (12) month requirement of physical presence within Indiana if his presence in Indiana results from the establishment by his parents of their permanent residence within the state and if he proves that the move was predominantly for reasons other than to enable such minor to become entitled to the status of "resident student."
 - 3. When it shall appear that the family of a person properly classified as a "resident student" under paragraph 2 has removed its permanent home from Indiana, such person shall then be reclassified to the status of nonresident; provided, that no such reclassification shall be effective until the beginning of the semester next following such removal.
 - 4. 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 the twelve (12) month period of residence; nor shall absence from Indiana for such purpose deprive a person of resident status.

* Many instruments required for the education of a dental student can be used after graduation if the student exercises care.

INDIANA UNIVERSITY SCHOOL OF DENTISTRY

- 5. 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.
- 6. 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, subject to the provisions of paragraph 3; conversely, a person once properly classified as a nonresident student shall remain a nonresident student until such time as he shall receive the degree for which he is enrolled.
- 7. 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.
- 8. A Standing Committee on Residence shall be appointed by the President of the University.
- 9. 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.
- 10. 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.
- 11. A student, within thirty days after notice of an adverse decision by the Committee on Residence, may file an appeal to the Trustees with its Secretary.
- 12. 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.
- 13. 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.
- 14. 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.

Student Loans. The School maintains an emergency loan fund for students who would otherwise be unable to continue their dental education. This fund is available during their last three years. Financial assistance is also available from the Indiana Dental Association, while loans and scholarships may be obtained through the Health Professions Scholarship Loan Program for members of all four classes on the basis of need. Arrangements may also be made through commercial banks for various types of loan programs.

Student American Dental Association. The local chapter of this organization is fully recognized by the American Dental Association, and membership is open to all students in the School of Dentistry. The function of the organization is to consider problems incident to the student's approaching graduate experiences based on the principles established for the guidance and government of the ADA. Members automatically become members of the ADA upon graduation.

Honor Fraternity. The national dental honorary fraternity, Omicron Kappa Upsilon, is represented by the component chapter of Theta Theta. All nominations are made from the upper one-fifth of the graduating class, with membership being voted annually by the faculty members to 12 percent of the class. The key, which is symbolic of the fraternity, is awarded to each newly elected member.

ACADEMIC INFORMATION

Predental Counseling. A student may be admitted to the School of Dentistry upon receipt of his baccalaureate degree; at the end of three years in the College of Arts and Sciences; or, in exceptional cases, upon completion of two years of undergraduate preparation.

Predental students desiring to discuss their academic programs may arrange appointments with predental advisers either at Bloomington or in Indianapolis. Interested students may write or call the Recorder of the School of Dentistry in Indianapolis. Notices of the presence of predental advisers on the Bloomington campus also appear periodically in the announcement column of the *Indiana Daily Student*.

Predental Work. Since very few students are accepted by the Indiana University School of Dentistry with the minimum of two years of predental courses, the suggested predental curriculum is a three-year or, in many cases, a four-year program. The predental collegiate training may be taken at any accredited college or university. Details of courses offered in the various accredited colleges may vary, so the courses should be carefully considered when a program is planned, particularly in the field of science. All required science courses, for example, must always include lecture and laboratory. Further, it is advisable to include extra work in the area of biology. Additionally, courses in the social sciences, humanities, mathematics, literature, philosophy, and the arts are recommended.

Since the prescribed curricula vary greatly from college to college, students who are not certain about the arrangement of their predental work are advised to contact the Recorder, Indiana University School of Dentistry, 1121 West Michigan Street, Indianapolis, Indiana 46202. Students who take their predental work at other schools will be required to have it evaluated to determine whether or not it has met the standards of admission of the School of Dentistry.

The following courses are recommended as desirable electives for students attending Indiana University in Bloomington: Introductory Psychology I (Psychology P101), Greek and Latin Elements in Medical Terminology (Classics C209), Public Speaking (Speech S121), and courses listed on page 12.

Admission. Applicants must present:

1. A completed formal application accompanied by the supporting documents enumerated below. Application should be submitted prior to the first semester of the academic year preceding that in which the applicant wishes to enter.*

2. High school credentials which will satisfy requirements for admission to the Junior Division of Indiana University.

3. A dental aptitude test, which each applicant must take, and which must be in possession of the Committee on Admissions in ample time to allow consideration of the results along with the applicant's other records. Details concerning this test may be obtained by contacting the School (see back cover) or by writing the American Dental Association, 211 East Chicago Street, Chicago, Illinois 60611.

4. Official transcripts from *each college* attended reflecting a total minimum of 60 semester hours or 90 quarter hours of approved predental collegiate work to include:

- a) Two semesters of credit in English (minimum of six hours)
- b) Two semesters or three quarter semesters of biology or zoology
- c) Two semesters or three quarter semesters of general physics
- d) Two semesters or three quarter semesters of general chemistry
- e) One semester or two quarter semesters of organic chemistry

^{*} It is not necessary for the applicant to complete the academic requirements before making application, although all requirements must be completed before final acceptance can be given.

5. For Indiana residents, credit points equal to at least twice the number of hours of credit (a C average), although few students, if any, are accepted with just a C average. The nearer a B average the student has, the more likely are his chances of being accepted. For nonresidents of Indiana, a minimum B average (3.0 on a 4.0 scale) is necessary for consideration.

All entrance credentials must be approved by the Committee on Admissions of the School of Dentistry. The Committee strongly encourages personal interviews. Preferential consideration will be given to applicants who are residents of Indiana.

Admission to Advanced Standing. Credentials indicating satisfactory completion of courses in a school which has at least comparable preliminary requirements and maintains a similar curriculum will be considered for admission of a student to the School at an advanced level. Examinations in all subjects may be required of applicants for advanced standing. Occasionally, graduates of foreign dental schools who desire a degree from Indiana University may be admitted. These students are given a special course of study which requires a minimum of three years and includes completion of all the routine senior requirements.

Withdrawals. The faculty reserves the right to request the withdrawal of any student whose conduct, health, or academic performance would appear to render him unfit for the practice of dentistry. Voluntary withdrawals, approved by the Dean during the first four weeks of a semester and during the first two weeks of a summer session, are arbitrarily marked W. After this time, such withdrawals are marked W or WF according to whether the student is passing or failing in the work of the course at the time of withdrawal, and the student shall be required to show adequate reasons for withdrawal to the Dean. In those cases where students discontinue attendance without officially withdrawing, the instructor shall report the grade of WF.

Grades. A student's grade in each course will be determined by the combined results of examinations and classroom work. The quality of a student's work will be indicated by the following grades: A, B, C, D, S (satisfactory), F (failure), and I (incomplete). A failure requires repetition of the course or additional work approved by the Dean.

Incompletes. A student who misses a final examination and who has a passing grade up to that time is given a temporary 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.

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 six months of the date of its recording (except in clinical courses), or the Dean of the School of Dentistry 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. A student may not register in a course in which he has a grade of Incomplete.

Attendance. Instruction in all courses will begin as scheduled. A student who has not completed his registration within one day after the last stated day of registration will not receive credit for the year's work.

The minimum acceptable attendance for any course in which the student desires to receive credit is 85 percent of the time scheduled for instruction. The margin of 15 percent is intended only for unavoidable absence due to illness, death of relatives, delayed registration, and other such causes as the Dean shall consider exceptional.

In case of serious personal illness, properly attested, whereby a student's attendance falls to not below 75 percent during the school year, the student may be permitted to make up 10 percent of the required 85 percent minimum by systematic work during vacation under competent instruction at his own expense. Such work must be done at the School of Dentistry and must have the sanction of the Dean and the instructor in charge of the course.

Promotions. No student will be promoted in good standing unless he has at least twice as many credit points as hours. A student who has incompletes or failures, or both, in courses amounting to more than 30 percent of the scheduled hours for the semester may be dropped from his class.

SEVEN-YEAR COMBINED DEGREE PROGRAM

A.B./D.D.S. Program*

A student admitted to the School of Dentistry after completing 90 hours in the College of Arts and Sciences, and who has satisfied the Group I-V requirements, including a concentration in the College, may apply 32 hours earned in his first year in dentistry as electives and at the end of this year earn the A.B. degree.

Suggested Predental Program Leading to the A.B./D.D.S. Degree

First Year

First Semester		Second Semester	
I	lours		Hours
†English Composition W131 Principles of Chemistry C105 \$\$Foreign Language \$Physical Education	3 5 5 1 14	English Literature L101 Quantitative Chemistry C106 Foreign Language Public Speaking S121 §Physical Education	· 3 · 5 · 2 · 1
			16

Summer Session-3 to 6 hours-electives

Second Year

English Literature L102	3	Social Problems S163	3
Organic Chemistry Lecture C341	3	Developmental Anatomy Z215	5
Greek and Latin Elements in Medical		Organic Chemistry Laboratory C343	2
Terminology C209	2	Genetics Z364	4
Animal Biology Z103	5		-
Principles of Sociology S161	3		14
	-		
	16		

Summer Session-3 to 6 hours-electives

Third Year

General Physics P201	5	General Physics P202	5
Endocrinology Z466	3	Electives (Zoology)	3
Psychology P101	3	Introductory Bacteriology Lecture M250	3
Other requirements	3	Introductory Bacteriology Laboratory M255	2
And the providence with the entry with an	-	Other requirements	3
	14		-
			16

* See also the general requirements in the 1972-73 Bulletin of the College of Arts and Sciences. † The School of Dentistry requires that all predental students complete at least 6 hours of English. Public speaking, composition, or literature may be used in completing this requirement. We recommend English Literature L101 and L102 since they may also apply on the arts and humanities requirement. ‡ If at the elementary level, may be taken pass/fail, but hours do not count toward 90, regardless of

[‡] If at the elementary level, may be taken pass/fail, but hours do not count toward 90, regardless of how taken. To complete the 18 hours of foreign language requirement the student may elect to take 8 additional hours of foreign language or take 3 foreign culture courses as outlined in material which may be obtained from the College of Arts and Sciences. Suggested subjects for elective courses are: anthropology, bioanthropology, astronomy, economics, history, personal finance, etc. The School of Dentistry faculty recommends that the predental student elect to complete the 25-hour concentration group in the field of zoology, biological sciences, or chemistry. The student should take those courses listed plus enough to complete the concentration group after consulting with the department concerned or the College of Arts and Sciences.

[§] Physical education and foreign language not requirements of the School of Dentistry. However, foreign language is required in the Combined Degree Program.

To complete the A.B. degree program, 90 hours are required. The suggested program of study totals 81 hours exclusive of 10 hours of foreign language, if those 10 hours are taken at the elementary level.

The courses in the program outlined above may be taken in slightly different order provided the required courses are taken prior to admission. The student should bear in mind that there are questions over chemistry and biology on the Dental Aptitude Test, and these subjects should take precedence over physics, which should be left for the third year. The number of hours of credit given in the rquired courses may vary slightly from one college to another.

Undergraduate Courses, 1972-73

The letter before the course number indicates field of study or category; the first digit of the course number indicates the year in which the course is offered, as follows: 5, freshman; 6, sophomore; 7, junior; 8, senior. The figures given in parentheses with "cr." indicate credit hours. The abbreviation "P" refers to the course prerequisite or prerequisites. These courses are subject to change without notice.

Anatomy

D509-D510 Anatomy, Oral: Freshman (Lecture and Laboratory) (1-2 cr.) Morphological and functional study of the teeth; their arrangement and occlusion.

D511 Human Anatomy: Freshman (7 cr.)

Gross anatomical features of human body; special emphasis on head and neck; lecture and laboratory. D513 Histology: Freshman (5 cr.)

Histogenesis and minute structure of human tissues and organs; morphologic evidence of their function.

- D514 Histology and Embryology, Oral: Freshman (2 cr.) Microscopical study of oral tissues and their development, including lecture and laboratory work. Slides, radiographs, and fresh tissues from dental clinic used to correlate structure and function.
- D807 Anatomy, Applied: Senior (1 cr.) Comprehensive review of head and neck; liberal use of prepared specimens and other aids. Relationship of anatomical structures to clinical procedure.

Biochemistry

B505 Biochemistry for Dental Students: Freshman (7 cr.) Chemical nature of major tissue constituents, intermediary metabolism, chemical regulation of body functions. Principles of nutrition; emphasis on biochemistry of teeth.

Complete Denture

-D633-D634 Complete Denture: Sophomore I (Lecture and Laboratory) (1-2 cr.)

D635 Complete Denture: Sophomore II (Lecture and Laboratory) (2 cr.) Lectures and laboratory exercises in basic techniques; prepares student to solve clinical problems encountered in junior and senior years.

D763-D764 Complete Denture: Junior (Lecture and Clinic) (1-1 cr.)

D765 Complete Denture: Junior (Clinic) (1 cr.)

Lectures, seminars, reading assignments, clinical practice; diagnosis and treatment planning and their influence on prosthetic procedures.

D863-D864 Complete Denture: Senior I (Lecture and Clinic) (1-2 cr.)

D865-D866 Complete Denture: Senior II (Lecture and Clinic) (1-2 cr.)

Demonstrations, lectures, seminars, and clinical practice covering all phases of complete denture prosthetics; diagnosis and treatment planning, with clinical assignments in treatment of more advanced abnormalities.

Dental Materials

D611-D612 Dental Materials: Sophomore I-II (2-1 cr.)

Discussion and demonstration of physical and chemical properties of dental materials; effect of manipulation upon these properties; clinical applications stressed.

Dental Sciences

D523-D524 Dental Sciences: Freshman I (Lecture and Laboratory) (1-3 cr.) Acquaints student with materials and techniques used in subsequent courses of study; fundamental

principles of clinical dentistry.

D525-D526 Dental Sciences: Freshman II (Lecture and Laboratory) (1-3 cr.)

Endodontics

D617-D618 Endodontics: Sophomore (Lecture and Laboratory) (1-1 cr.) Correlation of basic endodontic clinical procedures and related biologic principles.

D816 Endodontics: Senior (1/2 cr.)

Clinical applications of principles of endodontics taught in preclinic years. Correct selection of cases, effective treatment procedures, restoration of pulpless tooth following endodontic treatment.

Fixed and Removable Partial Prosthodontics

- D613-D614 Fixed Partial Prosthodontics: Sophomore I (Lecture and Laboratory) (2-2 cr.)
- D615-D616 Fixed Partial Prosthodontics: Sophomore II (Lecture and Laboratory) (1-1 cr.)

Lecture and laboratory cover fundamentals, indications, contraindications, and construction of full veneer and partial veneer crowns, the inlay as a retainer, use of the pinledge, soldered joint and subocclusal rest, and indications and contraindications for fixed bridges.

D619-D620 Removable Partial Prosthodontics: Sophomore (Lecture and Laboratory) (2-2 cr.)

Basic principles of diagnosis, surveying, mouth preparation, clasp design, saddle outline, types of bars and their rigidity, selection of teeth, assembly, processing, and insertion and care of partial dentures.

D715-D716 Fixed Partial Prosthodontics: Junior (Lecture and Laboratory) (2-3 cr.)

D717 Fixed Partial Prosthodontics: Junior (Clinic) (1 cr.)

Lectures, laboratory studies, and clinical practice in diagnosis; pontic design and construction; indications and construction of porcelain and acrylic veneers, changes in vertical dimensions, and anterior-MacBoyle retainer; elastic impression technique, construction of bridges and partial veneer crowns.

D791 Removable Partial Prosthodontics: Junior (Lecture) (1 cr.)

D795-D796 Removable Partial Prosthodontics: Junior (Lecture and Clinic) (1-1 cr) Plans for mouth preparation and designs for removable partial dentures, survey of clinical models, splinting, and equilibration through grinding and restorative procedure.

D809-D810 Fixed Partial Prosthodontics: Senior I (Lecture and Clinic) (1-3 cr.)

D819-D820 Fixed Partial Prosthodontics: Senior II (Lecture and Clinic) (1-3 cr.) Precision attachments, oral rehabilitation, seminar discussions of clinical cases. Clinical construction of upper and lower anterior and posterior bridges; individual crowns of gold, gold and porcelain, gold and plastic, and plastic and porcelain.

D871-D872 Removable Partial Prosthodontics: Senior I-II (1-1 cr.) Mouth preparation for and construction of clinical partial dentures.

Maxillofacial Prosthetics

D831-D832 Maxillofacial Prosthetics: Senior I-II (1/2-1/2 cr.)

Multidisciplinary lectures in the prosthetic habilitation and rehabilitation of patients with congenital, acquired, or developmental intra-oral, para-oral, extra-oral, and facial and cranial bone defects, including prosthetic reconstruction involving cleft palate and loss of tissue following tumor surgery, accidents, and war injuries.

Microbiology

J650 Microbiology for Dental Students: Sophomore (4 cr.) Microbiology as it applies to problems of the oral cavity; importance of microbiology to practicing dentist; methods and procedures of sterilization and asepsis.

Nutrition and Public Health

D710 Nutrition: Junior (2 cr.)

Fundamentals of nutrition and metabolism; biological analysis for normal metabolic constituents; importance of adequate protein, fat, vitamin, mineral, and endocrine level in body as a whole, and teeth and supporting structures in particular.

D806 Public Health: Senior (1 cr.)

Problems relating to public health as applied to dentistry; how health problems are integrated with local communities; state and national programs.

Operative Dentistry

D623-D624 Operative Dentistry: Sophomore I (Lecture and Laboratory) (1-3 cr.)

Operative Dentistry: Sophomore II (Lecture and Laboratory) D625-D626 (1-2 cr.) Training in principles of operative dentistry and basic technical procedures; classification of cavity preparation, instrumentation and manipulation, and physical properties of materials. Prepares for clinical program in Junior year.

D723-D724 Operative Dentistry: Junior (Lecture and Clinic) (1-2 cr.)

D725-D726 Operative Dentistry: Junior (Lecture and Clinic) (1-3 cr.) Clinical procedures in care of unit, working positions, application of rubber dam; anesthesia; impression procedures, selection of restorative materials, and cavity preparation for assigned patients.

INDIANA UNIVERSITY - PURDUE UNIVERSITY AT INDIANAPOLIS

D823-D824 Operative Dentistry: Senior (Lecture and Clinic) (1-3 cr.)

D825 Operative Dentistry: Senior (Clinic) (3 cr.)

Current concepts of operative dentistry; research findings and new techniques evaluated and described in a manner to encourage clinical application during senior year.

Oral Diagnosis/Oral Medicine

D711-D712 Oral Diagnosis: Junior I-II (11/2-11/2 cr.) Lectures and clinical practice in oral examination, history taking, coordination of symptomatology; interpreting radiographs and detecting etiologic factors, both systemic and local of oral disorders; clinical teaching supplemented by prepared case histories with color photographs.

D811-D812 Oral Diagnosis: Senior I-II (1/2-1/2 cr.)

Continuation of D711-D712. Clinical practice provides an opportunity to see and study various kinds of oral diseases of numerous patients who appear for treatment. Also lectures on applied psychology in dentistry.

Oral Rehabilitation

D808 Rehabilitation: Senior (1 cr.) Lectures by representatives of medical, dental, and allied health specialties emphasizing multidis-ciplinary approach in rehabilitation of patients with congenital and acquired oral facial defects.

Oral Surgery

D706 Principles of Surgery: Junior (1 cr.)

Fundamental principles of surgery as applied to the mouth.

D733-D734 Oral Surgery: Junior I (Lecture and Clinic) (1-1/2 cr.)

D735-D736 Oral Surgery: Junior II (Lecture and Clinic) (1-1/2 cr.)

Lectures, demonstrations, clinical practice in local anesthesiology, surgical anatomy, and basic principles of surgery; diagnosis and treatment of diseases and infections of face, neck, oral cavity, and adjacent tissues; supervised removal of teeth and minor oral surgery procedures.

D818 Anesthesiology: Senior (1 cr.)

Indications, contraindications, techniques for use, and principles of various general anesthetic agents.

D833-D834 Oral Surgery: Senior I (Lecture and Clinic) (1-1/2 cr.)

D835-D836 Oral Surgery: Senior II (Lecture and Clinic) (1-1/2 cr.) Lectures, seminars, clinical practice, and demonstrations of diagnosis and treatment planning; sur-gical treatment of oral disorders including tumors, impacted teeth, alveolar abscesses, deformities, harelip, cleft palate, and mandibular and maxillary fractures.

Orthodontics

D601-D602 Fundamentals of Occlusion: Sophomore I-II (1-1 cr.)

Normal occlusion-dental, skeletal, neuromuscular patterns; diagnosis of dento-facial abnormalities, and growth and development of cranio-facial complex.

D771-D772 Orthodontics: Junior (1-11/2 cr.)

Dental and facial anomalies and the study of diagnostic methods and classifications. Technical exercises used in prevention and correction of malocclusions.

D803 Orthodontics: Senior (1 cr.)

Case analysis and treatment planning of comprehensive orthodontic problems; role of general practitioner in detection, interception, treatment.

Pathology

C607 General Pathology: Sophomore (4 cr.)

Principles of disease production in human body; gross specimens and histologic analyses as means of teaching common ways in which living tissues and organs of body respond to various injurious agents. D608 Pathology, Oral: Sophomore (3 cr.)

Developmental abnormalities and acquired disorders of teeth and surrounding structures; illustrated association maintained with clinical dental departments.

D704 Pathology, Oral: Junior (1 cr.)

Lectures, conferences, and discussions of system of pathology including oral manifestations of systemic diseases such as blood dyscracias and dermatoses as well as specific diseases of bone, muscle, and nerves.

D821-D822 Senior Pathology Conference: Senior I-II (1/2-1/2 cr.) Interesting clinical cases are studied grossly, radiographically, and histologically; diagnosis established

and proper method of treatment outlined.

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Pedodontics

D708 Pedodontics: Junior (1 cr.)

Child management; growth, development, and morphology of the deciduous dentition; restorative and preventive procedures for children.

D709 Advanced Pedodontic Technic: Junior (1/2 cr.) Current advanced technical procedures in pedodontics.

Current auvanced technical procedures in pedodolitics

D843-D844 Pedodontics: Senior (Lecture and Clinic) (1-1 cr.)

D845 Pedodontics: Senior (Clinic) (1 cr.)

Restorative and preventive procedures for children performed in clinic and correlated with material presented in lecture course; clinical assignments in practice of dentistry for children.

Periodontics

D607 Periodontics: Sophomore (1 cr.)

Diagnosis, treatment, and prevention of periodontal disease; maintenance of oral health.

D753-D754 Periodontics: Junior I (Lecture and Clinic) (1-1/2 cr.)

D755-D756 Periodontics: Junior II (Lecture and Clinic) (1-1/2 cr.) Periodontal diseases confronting the general practitioner, their etiology, symptomatology, and ac-

cepted methods of treatment.

D851-D852 Periodontics: Senior I-II $(\frac{1}{2}-\frac{1}{2} \text{ cr.})$

Review of principles taught in preceding years; emphasis on instrumentation and clinical procedures; subject material provided by clinical cases.

Pharmacology and Therapeutics

- D705 Therapeutics and Dental Pharmacology: Junior (1-1/2 cr.) Lectures and quizzes in rational use of drugs, supported by pharmacotherapeutics, toxicology, posology, materia dentica, prescription writing, and clinical demonstrations.
- D781 Internal Medicine: Junior (1 cr.) The more important systemic diseases and drugs used in their treatment.

D794 Pharmacology: Junior (2 cr.) Lectures and quizzes; site and mechanism of typical drugs; drugs used most frequently in dentistry.

Physiology

F509 Human Physiology: Freshman (6 cr.)

Study of muscle, nervous systems, body fluids, circulation, respiration, digestion, metabolism, excretion, endocrines, sense organs, and body systems.

Practice Administration

D504 History of Dentistry: Freshman (1 cr.)

Dentistry in prehistoric, ancient, medieval, and modern periods through textbook assignment; discussions of development of modern phases of practice; development of dental education traced; dental code of ethics explained.

D804 Jurisprudence: Senior (1 cr.)

Cases on elementary law; contracts and torts as applied to dental practice and professional relationships, duties and liabilities, malpractice, and statutes governing dental practice.

D805 Practice Administration: Senior (1 cr.)

Office administration, patient relations, professional cooperation, collections, insurance, investments, taxes.

Preventive Dentistry

D503 Dental Seminar: Freshman (1 cr.)

Designed to aid in orientation of freshman dental students.

D507 Oral Biology: Freshman (2 cr.)

Biochemistry and physiology of enamed, biochemistry of saliva and connective tissue, etiology of dental caries and periodontal disease; formation and prevention of dental calculus.

D714 Preventive Dentistry: Junior (1½ cr.) Theory of preventive dentistry and relationship of biochemistry to prevention of dental disease; special clinic course to teach standard laboratory diagnostic procedures in planning an effective preventive program for dental patient; correlating diagnosis with treatment plan.

D813 Preventive Dentistry: Senior (1 cr.)

Coordinates previous preventive dentistry teaching into a practical plan of preventive dentistry for the dental practitioner; philosophy and techniques important to building a modern dental practice which emphasizes prevention.

Radiology

D719-D720 Radiology: Junior I-II (Lecture and Clinic) (2-1/2 cr.)

Facets of dental radiography: X-ray production characteristics of ionizing radiation, manipulation of X-ray machines, preparation of radiographs and their interpretation, radiological health hygiene.

D814 Radiology: Senior (Clinic) (1/2 cr.) Seniors are assigned to the Radiology Clinic to improve skills in radiographic technique and interpretation.

Special Clinics

Junior and senior students are scheduled for numerous special clinics in the Marion County General Hospital and in the Riley and Long Hospitals, as well as in the School of Dentistry.

D501-D502 Introduction to Clinical Dentistry $(\frac{1}{2}-\frac{1}{2} \text{ cr.})$

Orientation to the clinic, radiography, oral diagnosis and treatment planning, personal oral health, surgical procedures, and local anesthesia.

Summer Session

Clinical Dental Procedures (6 cr.)

Students perform dental treatments in School clinics. Offered to advanced students on a full- or half-time basis. Six hours of elective credit if taken on a full-time basis.

D400 Clinical Procedures: Junior (1 cr.)

P: junior standing. Students assigned to various dental clinics for instruction and experience in patient care.

D401 Clinical Procedures: Senior (1 cr.)

P: senior standing. Students assigned to various dental clinics for instruction and experience in patient care.

Undergraduate Curriculum in Dentistry

Freshman Year

	First Sen	nester	Second	Semester		
	1	Laboratory		Laboratory	Total	Total
Courses	Tastura	or	Testure	or	Credit	Clock
Courses	Lecture	Clinic	Lecture	Clinic	Hours	Hours
Histology	20	3	0	0	3	120
Physiology	0	0	3	3	6	135
Human Anatomy	Ō	Ō	2	5	7	165
Biochemistry	6	1	0	0	7	120
Uental Seminar	0	0	1	0	1	15
Dental Sciences	1	3	1	3	8	210
Oral Histology and Embryology	Ô	ŏ	î	ĭ	2	45
Oral Biology	0	0	2	0	2	30
Introduction to Clinical Dentistry	0	1/2	· 0	1/2	1	30
Total					42	930
	Sophor	more Vea	-			
Complete Denture	1	2 2	1	1	5	120
Operative Dentistry	î	3	î	2	7	180
Fixed Partial Prosthodontics	2	2	ī	ī	6	135
Microbiology	0	0	2	2	4	90
Dental Materials	2 2	20	0	0	4 2	90
Fundamentals of Occlusion	1	Ő	1	0	2	30
Oral Pathology	Ô	ŏ	2	ĭ	3	60
Removable Partial Prosthodontics	0	0	2	2	4	90
Endodontics	0	0	1	1	2	45
Periodontics	0	0	1	0		15
Total		••••••			. 41	900
	Jun	ior Year				
Pharmacology	2	0	0	0	2	30
Operative Dentistry	ī	2	ĩ	3	7	255
Complete Denture	1	1	0	1	3	105
Fixed Partial Prosthodontics	2	3	0	1	6	165
Radiology	2	0	0	12	11/2	30
Orthodontics	ī	ŏ	1	1/2	21/2	521/2
Oral Diagnosis	. 1	1/2	1	1/2	3'*	75
Periodontics	. 1	1/2	1	1/2	3	75
Ural Surgery	. 1	1/2	1	1/2	3	75
Internal Medicine	0	0	1	0	1	10
Pedodontics	Ö	ŏ	î	Ő	i	15
Advanced Pedodontic Technique	. 0	1/2	0	Ó	1/2	15
Nutrition	. 0	0	2	0	2	30
Removable Partial Prosthodontics	. 1	0	1	1	3	75
Oral Pathology	1	0	0	0 72	172	15
	renadevita	n animan				
1 otal					- 441/2	1,1121/2
tanànan'ny isa manjadanana pandadanan	Sen	ior Year				
Applied Anatomy	- 1	0	0	0	1	15
Pedodontics	- 1	5	0	3	2	285
Fixed Partial Prosthodontics	1	3	1	3	8	300
Oral Surgery	. 1	1/2	Î	1/2	3	75
Oral Diagnosis	- 0	1/2	0	1/2	1	45
Periodontics	0	1/2	0	1/2	1	45
Complete Denture	- 1	20	1	20	6	210
Iurisprudence	0	0	1	0	1	15
Public Health	0	Ő	1	0	i	15
Preventive Dentistry	0	0	1	Ő	i	15
Radiology	0	0	0	1/2	1/2	221/2
Senior Pathology Conference	- 1/2	0	1/2	0	1	15
Removable Partial Prosthodontics	- 0	1	0	1/2	2/2	221/2
Anesthesiology	. 0	0	1	0	1	90
Orthodontics	1	Ő	Ô	0	1	15
Rehabilitation	1	0	0	Ö	î	15
Maxillofacial Prosthetics	1/2	0	1/2	0	1	15
Total		e entre	Contra Later		42	1 350
					16.	1,000

This schedule is subject to change.

Dental Hygiene

Dean and Professor McDonald; Professors Barton, Boyd, O'Leary, Phillips, Shafer, Standish, Starkey, Swartz, Swenson, Van Huysen; Associate Professors Gish, Norman, Ping; Assistant Professor and Director Boundy; Assistant Professors Carr, Kasle, Matlock, Tomich; Instructors Dahl, Hefner, Heine, Scott, Smith, Totten, Weaver

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, upon successful passage of 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 an Associate in Science degree and a program which leads to a Bachelor of Science degree. While the associate degree 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. Applicants should contact the Director of Dental Hygiene, Indiana University School of Dentistry, before enrolling in the freshman year. The second and third or sophomore and junior years must be taken in the School of Dentistry, Indiana University-Purdue University at Indianapolis, Indiana University at Fort Wayne, Indiana University at South Bend, or Indiana State University at Evansville. The fourth or senior year may be taken in the Division of Allied Health Sciences of the School of Medicine in Indianapolis.

Since each year more qualified applicants apply than can be accepted, only those who show an aptitude for and an interest in a professional career and the ability to pursue academic work at a college level are admitted. Additional information may be obtained by writing to the appropriate address as listed on the inside back cover.

COURSES FOR THE PROFESSIONAL CURRICULUM FOR DENTAL HYGIENISTS

H212-H213 Human Biology I-II: First Year (4-4 cr.)

Combined course including anatomy, physiology, pathology; emphasis on head and neck.

- H214 Dental Anatomy: First Year (3 cr.) Gross study of morphology of teeth, their arrangement, and occlusions; manufacture of reproductions of various types of human teeth.
- H215 Pharmacology and Therapeutics: First Year (2 cr.)

Actions and uses of drugs and theory of anesthetics; emphasis on drugs used in dentistry.

H216 Chemistry and Nutrition: First Year (3 cr.)

Specific ideas in chemistry are correlated with working principles in dentistry-previous knowledge of chemistry assumed.

- H217 Preventive Dentistry: Second Year (1 cr.) Detection and prevention of dental diseases.
- H218 Dental Prophylaxis Technic: First Year (3 cr.) Utilizing manikin heads student develops operative technic in removing stains and deposits from teeth; lectures on dental hygiene profession.

H219 Clinical Practice: First Year (4 cr.)

Treatment of juvenile and adult patients in clinics of dental school and dental clinics of Riley Hospital.

H221 Clinical Dental Hygiene Procedures: Summer (1 cr.) Assignments in the clinics of the dental school for instruction and experience in dental prophylaxis technics. H301-H302 Clinical Practice I-II: Second Year (5-5 cr.) Continuation of H219.

H303 Radiology: Second Year (2-1 cr.)

Principles associated with production of X rays and manipulation of X-ray machine. H304 Oral Pathology: Second Year (2 cr.)

Developmental abnormalities and acquired disorders of teeth and surrounding structure. H308 Dental Materials: Second Year (2 cr.)

Composition, physical and chemical properties of materials used in dentistry.

H309 Practice of Community Dental Hygiene: Second Year (2 cr.) Supervised field experience in a school health program.

H310 Technical Writing: Second Year (2 cr.) Evaluation and reporting of research in dentistry.

H311 Dental Health Education: Second Year (2 cr.) A study of the concepts, methods, and audio-visual aids in dental health education used in private dental practice and schools.

Courses Outside the School of Dentistry

Allied Health E443Public Health Education Methods (3 cr.) (Second Year)Allied Health S321Principles of Environmental Health (3 cr.) (Second Year)HPER H160First Aid (1 cr.) (Second Year)Microbiology J207Microbiology for Dental Hygienists (4 cr.) (First Year)Psychology P102Introductory Psychology II (3 cr.) (Second Year)

Graduate Work in Dentistry

Dental Graduate Faculty: Dean and Professor McDonald; Assistant Dean and Professor Standish (Chairman); Research Professor Muhler; Assistant Dean and Research Professor Phillips; Assistant Dean and Associate Professor Bogan; Professors Andrew, Barton (Secretary), Dykema, Gilmore, Healey, Hopper, Lund, Mitchell, O'Leary, Patterson, Shafer, Shanks, Swartz, Van Huysen; Associate Professors Bixler, Cunningham, Garner, Gish, Jordan, Katz, Klein, Norman, Schnell, Weinberg; Assistant Professors Baldwin, Carr, Gifford, Hansen, Kelley, Koerber, Matlock, McDonald, Mercer, Miller, Potter, Stookey, Tomich, Van Roekel

Advisory Faculty: Professors Boyd, Gregory, House, Roche, Starkey, Swenson; Associate Professors Chalian, Hutton; Assistant Professors Kasle, Simpson

The Master of Science in Dentistry (M.S.D.) program is intended primarily for students who have received the doctorate in dentistry and who wish to go on to obtain an adequate background in one of the various specialized fields of dentistry or of the allied basic sciences, in order to broaden their dental background or to complete the academic requirements for specialty boards. Under special circumstances, the M.S.D. degree may be conferred upon outstanding individuals not holding the D.D.S. or equivalent degree who have demonstrated ability in dental research and education and who give good evidence of continuing in these fields.

Students may also register in the Graduate School of Indiana University and work toward the M.S. or Ph.D. degree. Emphasis in the M.S. program, available in the fields of dental materials, oral diagnosis-oral medicine, oral pathology, orthodontics, and preventive dentistry, is on nonclinical subjects. The M.S. and Ph.D. degrees are available in the fields of anatomy, physiology, microbiology, pharmacology, biochemistry, and dental science on the Medical Center campus.

The M.S.D. degree may be granted in the following major areas of concentration: anatomy, biochemistry, crown and bridge prosthetics, dental materials, endodontics, operative dentistry, oral diagnosis-oral medicine, oral pathology, oral surgery, orthodontics, pedodontics, periodontics, preventive dentistry, prosthetic dentistry, public health, and radiology.

In general, students who wish to practice or teach a clinical subject are encouraged to work toward the M.S.D., while those more interested in the basic science courses would be advised to complete the requirements for the M.S. degree.

The Ph.D. program in dental science is designed specifically for individuals who desire to teach and pursue a career in dental research and education. An outside minor of advanced courses in dental science is offered which is especially designed to give students an understanding of the basic problems to be met in the clinical dental sciences and a familiarity with the application of the basic sciences to dentistry.

Admission. Only students who have a minimum accumulative grade average of B will be considered for admission, unless under exceptional circumstances the prospective student can provide evidence that he is capable of successfully completing the graduate dental program. Application forms (see back cover) must be accompanied by transcripts of undergraduate and professional work together with such additional material as may serve to determine eligibility and ability to conduct satisfactorily an advanced course of study.

Faculty Committee. Candidates for degrees are assigned to a graduate faculty committee. This committee is composed of the chairman of the candidate's major subject, who serves as the chairman of the committee, and four additional graduate faculty members. It is the purpose of this committee to advise the student concerning his academic problems.

Degree Requirements. Requirements for the M.S. and Ph.D. degrees are outlined in the Bulletin of the Graduate School. Requirements for the M.S.D. are as follows: Course Work. A minimum of 30 hours of course work, of which at least 18 hours must be devoted to didactic work. Of this total of 18 hours, no more than six may be in an advanced clinical practice investigation. A total of six hours must be in research; however, no additional credit will be allowed if the student takes courses in excess of six hours. Each student must satisfactorily complete an original research problem.

Required courses, which comprise the major concentration, must be taken in proper sequence. Selection of a minor subject is an individual matter with a variety of subjects available. It is generally dependent upon the ultimate goal of the student and his academic background.

Final credit requirement is determined by each student's graduate committee and is usually dependent upon the student's previous academic accomplishments.

Residence. Students must meet a residency requirement of two semesters. Normally, a student acquires a semester of residence by carrying a course load of 14 to 16 hours for an academic semester. Students carrying a course load in excess of 16 hours do not receive extra residence credit. Those carrying less than a normal course load receive credit at the rate of six weeks of residence credit for each five semester hours completed.

Examinations. The members of the student's committee will conduct preliminary oral examinations covering essentially the candidate's fields of study. The student must complete his preliminary oral and written examination six months prior to his intended date of graduation. He is eligible to take these examinations upon the completion of one half of his didactic course requirements.

Thesis. The student must submit typed drafts of his thesis to the members of his faculty committee two weeks prior to his thesis examination. Upon acceptance by the faculty committee, and at least two weeks prior to commencement, the student must deliver to the graduate office four unbound final copies of the thesis, an acceptance sheet signed by his committee, a 500-word abstract, and a vita sheet.

Fees. Fees for resident students in the graduate dental program are \$25 per credit hour, and for nonresidents \$50 per credit hour. An advanced payment of \$50 on fees is required after a student has been accepted. This fee is not returnable except in instances where students are called to active military duty.

Instrument Charges. Graduate students in the clinical courses will be required to purchase instruments and, in some instances, pay a rental fee. Those who already own the instruments approved by the department prior to the opening of school need not purchase duplicates. The approximate charges for dental instruments and expendable materials are as follows:

Expendable Instruments \$1,037 Rental fee 100 per calendar year Endodontics
Rental fee 100 per calendar year
Endodontics
Rental fee 50 per calendar year
Operative Dentistry
Instruments 580
Rental fee 100 per calendar year
Orthodontics
Instruments 844
Pedodontics
Expendable materials 129
Rental fee 70 per calendar year
Periodontics
Instruments 566
Prosthetics
Instruments 425

Fixed and Removable Partial

Major Fields of Graduate Study

In addition to the general requirements for the M.S.D. program appearing in the preceding pages, the various departments require a specific minimum number of credit hours for students who wish to major or minor in their field. To meet this requirement the departments consider certain courses mandatory; others are deemed valuable as electives.*

ANATOMY

Course Requirements: Major, 15 hours; Minor, 6-8 hours* Recommended Courses: G901, G903, G909, G910, G932, G990, G991, G994 Elective Courses: C605, G902, G904, G907, G908, G948, G971, G974

BIOCHEMISTRY

Course Requirements: Major, 13 hours; Minor, 10 hours* Recommended Courses: G909, G910, G929, G970, G971, G972, G973, G974, G985 Elective Courses: F812, F816, F842, G959, R909, R910, R911, R912, R913, G982

FIXED AND REMOVABLE PARTIAL PROSTHODONTICS

Course Requirements: Major, 10-12 hours; Minor, 6-8 hours* Recommended Courses: G909, G910, G911, G923, G937, G938, G939, G940, G941, G942, G943, G944, G962, R909, R910, R911

Elective Courses: G901, G912, G913, G948, G956, G967, G974

DENTAL MATERIALS

Course Requirements: Major, 13 hours; Minor, 6-8 hours* Recommended Courses: G909, G910, G911, G912, G913, G921, R909, R910, R911 Elective Courses: G936, G941, G951

ENDODONTICS

Course Requirements: Major, 14 hours; Minor, 6-8 hours* Recommended Courses: C605, G902, G905, G907, G908, G909, G910, G926, G946, G948, G956, G957, G959, G965, R909, R910, R911, G980

Elective Courses: G901, G904, G905, G906, G953, G969, G974, G994

OPERATIVE DENTISTRY

Course Requirements: Major, 12 hours; Minor, 6 hours*

Recommended Courses: G901, G902, G910, G913, G925, G950, G951, G952, G953, R909, R910, R911

Elective Courses: R901, G907, G908, G911, G941, G944, G956, G962, G965, G967, G974, R912, R913, G982, G983, G985, G994

ORAL DIAGNOSIS-ORAL MEDICINE

Course Requirements: Major, 14 hours; Minor, 6-8 hours*

Recommended Courses: C605, G901, G902, G906, G907, G908, G909, G910, G918, G965, G968, G969, G986

Elective Courses: G904, G905, G959, R912, R913, G994, G995

ORAL PATHOLOGY

Course Requirements: Major, 12 hours; Minor, 6 hours*

Recommended Courses: C605, G902, G903, G904, G905, G906, G907, G909, G910, G920

Elective Courses: R914, G908, G955, G959, G965, G968, G969, G992, G993, G994

^{*} Credit in the major area will range from 10-15 hours with 6-9 hours required in the minor area course concentration. Additional hours of elective course work must be carried to complete a minimum of 30 credit hours.

ORAL SURGERY

Course Requirements: Major, 12 hours; Minor 6-8 hours*

Recommended Courses: G902, G904, G905, G906, G907, G909, G991, R903, R904, R905, R906, R907

Elective Courses: C605, G908, G935, G947, G955, G965, G969, G994, R901

ORTHODONTICS

Course Requirements: Major, 14 hours; Minor, 6 hours*

Recommended Courses: R914, G901, G902, G905, G909, G912, G927, G947, G958, G960, G963, G964, G965, G991, G994, R900, R902

Noncredit Courses: Fundamentals of Occlusion, Record Procurement, Speech Physiology and Pathology, Caries Prevention, Orthodontic Appliances, Myofunctional Therapy, Mixed Dentition Treatment, Staff Clinical Seminars, Histopathology of the Periodontal Membrane, Occlusal Equilibration, Orthodontics and Allied Specialties, Genetics, Application Systems, Facial Malformations and Rehabilitation, Practice Management, Anthropology, Neuromuscular Physiology

PEDODONTICS

Course Requirements: Major, 15 hours; Minor, 6-8 hours*

- Recommended Courses: G902, G909, G922, G931, G934, G935, G936, G945, G947, G962
- Elective Courses: G901, G907, G912, G917, G946, G965, G968, R909, R910, R911, R912, R913, G993, G994, G999

PERIODONTICS

Course Requirements: Major, 15 hours; Minor, 6-8 hours*

Recommended Courses: G901, G902, G905, G907, G909, G910, G928, G965, G966, G967

Elective Courses: G948, G955, G959, G968, R909, R910, R911, G991

PREVENTIVE DENTISTRY

Course Requirements: Major, 18 hours; Minor, 6 hours*

Recommended Courses: G909, G910, G930, G967, G974, R909, R910, R911, R912, R913, G982, G983, G985, G995, G996

Elective Courses: G902, G934, G948, G970, G971, G972, G973

COMPLETE DENTURE

Course Requirements: Major, 12 hours; Minor, 8 hours*

Recommended Courses: G902, G909, G910, G914, G915, G916, G917, G919, G940, G962, G991

Elective Courses: G901, G911, G913, G947, G948, G967, G974, R912, R913

PUBLIC HEALTH

Course Requirements: Major, 16 hours; Minor, 7-9 hours*

Recommended Courses: G909, G910, G933, G982, G983, G995, G996, G997, G998, G999

Elective Courses: G971, G974, R909, R910, R911, R912, R913

Noncredit Courses: Community Health Education, Personnel Management, Business and Professional Speaking

RADIOLOGY

Course Requirements: Major, 14 hours; Minor, 6 hours*

Recommended Courses: G908, G910, G924, G946, G948, G961, G975, G978, G979 Elective Courses: G904, G974, R909, R910, R911, R912, R913

^{*} Credit in the major area will range from 10-15 hours, with 6-10 hours required in the minor area course concentration. Additional hours of elective course work must be carried to complete a minimum of 30 credit hours.

Postgraduate Study in Dentistry

A student who wishes to take graduate courses in dentistry but does not plan to work toward an advanced degree, or who is not eligible to enter a graduate dental program, may take certain courses as a postgraduate student. In such instances the student will receive academic credit upon payment of the regular fees for such courses. All grades earned will be recorded in the Office of Records and Admissions and will also appear on official University transcripts. A certificate of attendance is issued upon completion of the course.

Graduate Courses, 1972-73

Broad fields of disease; inflammation and infection; study of material in classroom and at autopsy; disease related to anatomic systems correlated with clinical subjects.

G901 Advanced Oral Histology and Embryology (2 cr.)

Normal structures of oral cavity, their growth and development; microscopic study of tissues.

G902 Advanced Oral Pathology (1-6 cr.) All phases of disease of oral cavity and adjacent structures; oral manifestations of systemic disease; disturbances of growth and development, infections, and neoplasms; microscopic study of tissue sections.

G903 Histologic Technique (1 cr.)

Theoretical and practical preparation of tissue for microscopic study and application of special techniques in routine laboratory procedures and research.

G904 Special Pathology of Neoplasms (3 cr.)

Neoplastic disease in oral pathology; microscopic diagnosis; clinical features and treatment of tumors. G905 Special Pathology of Bone (1-3 cr.)

Histology, physiology, pathology of bone with reference to maxilla and mandible; development, growth, maintenance, functional adaptation of bone; bone in pathologic states such as developmental disturbances, inflammatory disturbances, disturbances of metabolism, tumors.

G906 Tumor Clinic (1/2 cr.; 1 cr. maximum) Clinical manifestation of neoplastic diseases; various types of therapy; tumors of head and neck.

G907 Oral Surgery Pathology Conference (1/2 cr.; 1 cr. maximum)

Presentation of cases which are diagnostic problems; student prepares several cases for presentation. G908 Advanced Radiographic Interpretation (2 cr.)

Theory and practice of radiographic interpretation; correlation between gross anatomy, histology, pathology, and the radiograph.

G909 Recent Advances in Dentistry (1 cr.) Recent developments in dentistry; introduction to statistics and how research problems should be designed.

- G910 Seminar (1 cr.)
- G911 Theory of Dental Metallurgy (1-5 cr.) Composition, chemical reactions, physical properties, clinical significance of metals, resins, and other materials used in dentistry; phases of metallography, physical chemistry, physics pertinent to this field.
- G912 Specifications and Test Methods in Dental Materials (1-5 cr.) Specialized test methods; attention to A.D.A. specifications.

G913 Clinical Application of Dental Materials (1-4 cr.) Practical application of basic knowledge; unique problems of dental materials and avenues for future research.

- G914 Advanced Complete Denture Theory (1-3 cr.) Advanced theories of prosthetic denture service; discussions on hinge axis, involved articulators, comparative values of the various types of denture materials and prosthetic teeth.
- G915 Advanced Complete Denture Clinic (1-6 cr.) Clinical practice following advanced theories and practices suggested in G914.

G916 Special Problems in Complete Denture Design (1-4 cr.)

Treatment of patients with difficult and unusual prosthetic denture problems.

G917 Maxillofacial Prosthetics (1-6 cr.) Lectures, seminars, demonstrations, clinical practice, and hospital routine in the prosthetic rehabilitation of individuals with congenital, acquired, or developmental intra-oral and extra-oral defects.

- G918 Research: Oral Diagnosis-Oral Medicine (cr. arr.)
- G919 Research: Complete Denture (cr. arr.)
- G920 Research: Oral Pathology (cr. arr.)
- G921 Research: Dental Materials (cr. arr.)
- G922 Research: Pedodontics (cr. arr.)
- G923 Research: Fixed Partial Prosthodontics (cr. arr.)
- G924 Research: Radiology (cr. arr.)
- G925 Research: Operative Dentistry (cr. arr.)
- G926 Research: Endodontics (cr. arr.)
- G927 Research: Orthodontics (cr. arr.)

C605 General Pathology (1-5 cr.)

- G928 Research: Periodontics (cr. arr.)
- G929 Research: Biochemistry (cr. arr.)
- G930 Research: Preventive Dentistry (cr. arr.)
- G931 Advanced Pedodontics (1-3 cr.)

Two-semester course; diagnostic, restorative, preventive phases of pedodontics; evaluation of the literature.

- G932 Research: Anatomy (cr. arr.)
- G933 Research: Public Health (cr. arr.)
- G934 Advanced Clinical Pedodontics (1-6 cr.)

Advanced restorative and preventive procedures in pedodontics; instruction and clinical experience in restorative dentistry, dental caries control, hereditary and congenital dental anomalies, oral habits, interceptive orthodontic procedures.

- G935 Dental Pediatrics (2 cr.) Dental problems of the chronically ill and handicapped child; lectures, discussions, and ward rounds cover normal and abnormal physical and emotional growth of the child.
- G936 Principles of Pedodontic Restorative Procedures (1-3 cr.)

Restorative and interceptive orthodontic procedures.

- G937 Advanced Clinical Instruction in Removable Partial Prosthodontics (2-6 cr.) Clinical construction of clasp-retained removable partial dentures, involving both normal mouths and those mutilated by accidents or extensive surgery.
- G938 Advanced Removable Partial Prosthodontics Technique (1-6 cr.) Includes precision attachments; surveying of models and designing of appliances; planning over-all treatment for partially edentulous mouths.
- G939 Porcelain Jacket Crown Technique (2 cr.) Construction of porcelain jacket crowns to dimension and form; rebuilding nonvital or mutilated teeth to prepared form; multiple construction in one arch and in opposing arches.
- G940 Advanced Clinical Instruction in Fixed Partial Prosthodontics (1-6 cr.) Construction of porcelain jacket crowns, acrylic bridges, stabilizing splints, occlusal reconstruction, increasing vertical dimension, full mouth reconstruction, splinting of abutment teeth, reconstruction of crown form of abutment teeth in preparation of mouths for removable bridges and partial
- dentures. G941 Advanced Fixed Partial Prosthodontics Technique (1-4 cr.) Construction of porcelain jacket crowns; reproduction of anatomic variation and color distribution; construction of plastic veneers and masking materials over gold; precision attachment technique.
- G942 Gnathology Seminar (1-3 cr.) Stuart concept of gnathology, occlusion, relationship of mandible to maxilla in rest position and in function, location of hinge axis.
- G943 Tooth Form and the Modifications Required in the Construction of Retainers and Pontics (1-2 cr.)

Topographical anatomy and contours in restorations of gold, porcelain, resin; methods of modifying or altering function for stimulation or protection of alveolar process and periodontal membrane.

- G944 The Principles of Gnathology (1-3 cr.) Application of gnathology to oral rehabilitation; techniques advocated by Drs. Stuart, D'Amico, DePietro, Granger; theory of clutch and cheek bite transfers.
- G945 Pedodontic Seminar (1 cr.) P: G934, G931, G935. For second-year graduate students and residents; current literature, research design, advanced case analysis and diagnosis.
- G946 Advanced Clinical Radiography (1-4 cr.) G948 prerequisite or taken concurrently. Clinical study of intra-oral and extra-oral radiographic techniques; various errors associated with oral radiographic techniques; problems and mechanisms associated with operation of a teaching-service clinic in oral radiography.
- G947 Cephalometrics (1-4 cr.) P: G991. Technique of procuring films of living individuals; tracing of important facial landmarks and planes; taking of significant angular and linear readings, and transposing same to a graph.
- G948 Advanced Radiology (2 cr.) Applications in X-ray production, intra-oral and extra-oral techniques, film processing, radiographic interpretation, radiation hygiene.
- G949 (J949) Microbial Physiology (3 cr.)
 - Chemical and physical nature of bacteria, their metabolic and physical properties, their response and adaptation to their environment.
- G950 Advanced Clinical Operative Dentistry (1-6 cr.)
 - Comprehensive restorative care correlated with modern preventive dentistry principles; current concepts of operative dentistry.

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G951 Fundamental Concepts of Operative Dentistry (2 cr.) Historical background of cavity preparation; engineering principles and mechanics of tooth reduction illustrate systematized cavity preparation. G952 Analysis of Operative Procedures (2 cr.) Restorative techniques and physical properties of dental materials correlated to properties of tooth structure; pulp protection and permanency of restorations. G953 Recent Advances in Operative Dentistry (2 cr.) Current concepts dictated by research; correlation of reports on the literature. G954 Principles of Crystal Growth (2 cr.) Physical and chemical properties of crystalline solids in light of their atomic structure and with respect to their environment; applications to medical and dental growths. G955 Endocrinology (1-3 cr.) General endocrinology and basic endocrine mechanisms; adrenal, pancreatic, thyroid, and parathyroid functions; oral and dental problems specifically associated with endocrine malfunction. Advanced Endodontics (1-6 cr.) G956 Instruction and training in the treatment of complex endodontic cases. G957 Analysis of Endodontic Theory (1-4 cr.) Review, study, and application of currently advocated endodontic procedures. G958 Bio-Mechanics (1-4 cr.) Principles of force application used in altering dento-facial relationship; appliance design, fabrication, and activation; specific treatment procedures discussed and applied on the typodont. G959 Oral Microbiology (1-3 cr.) Oral bacteria flora and their relationship to various branches of dentistry. G960 Advanced Orthodontic Clinic (1-6 cr.) Details of treatment plan based on careful analysis; timing phenomena; re-analysis of treatment; cleft palate, surgical correction, temporomandibular syndrome. G961 Advanced Radiographic Concepts (1 cr.) Principles of radiography in temporomandibular joint studies, sialography, panoramic radiography, laminography, cineradiography, cephalometry. G962 Fundamentals of Occlusion (2-4 cr.) Basic normal and abnormal processes which influence occlusion of humans as compared to that of herbivore, carnivore, and rodents; effects of unsatisfactory occlusion. G963 Advanced Orthodontic Techniques (2 cr.) Details of wrought and cast appliances used in treatment of malocclusions. G964 Dento-Facial Analysis (2 cr.) P: G947. Methods of determining and evaluating deviation from normal dental, skeletal, muscular, integumental patterns; treatment objectives with respect to stability, esthetics, function. G965 Histophysiology and Pathology of the Periodontium (2 cr.) Gross clinical observations correlated with microscopic findings of normal periodontium and periodontium under stress of orthodontic care, periodontal disease, periapical pathosis, systemic diseases; physiological role of tissues at cellular level. G966 Advanced Clinical Periodontics (1-4 cr.) Advanced cases of special interest involving diseases of soft tissue and bony support treated and evaluated. G967 Advanced Periodontics (1-4 cr.) Periodontal diseases relating to etiology, symptomatology, treatment, differential diagnosis. G968 Advanced Clinical Oral Diagnosis-Oral Medicine (1-6 cr.) Usual and unusual oral pathologic problems of patients. G969 Advanced Didactic Oral Diagnosis-Oral Medicine (2 cr.) Advanced diagnostic techniques and instruments applied with clinical signs and symptoms of oral and peroral diseases. G970 Advanced Biochemistry Laboratory (1-3 cr.) Special problems in intermediary metabolism; cellular respiration and experiments relating to inorganic metabolism; experimental hormonal problems. G971 Intermediary Metabolism (3 cr.) Metabolic pathways of fats, carbohydrates, proteins; cellular respiration and its effect on oral tissues. G972 Proteins and Nucleic Acids (2 cr.) Composition of proteins and protein-like substances; structure, method of analysis, relation of protein to other biological factors. Vitamins, Mineral Metabolism, and Hormones (2 cr.) G973 Structure and relation to disease and metabolism of these substances in relation to normal and abnormal dental diseases.

G974 Advanced Nutrition (2 cr.)

Special nutritional problems relating to calcification and soft tissue health; relation of fats, carbohydrates, proteins, vitamins, minerals, drugs on dental structures.

G975 Basic Radiological Physics (2 cr.) Basic properties of various types of ionizing radiation, their interaction with matter, fundamentals of radiation detection and measurement, basic instrument design.

G978 Fundamentals of Radiation Biology (2 cr.) P: G975. Effects of ionizing radiation on biological systems; concepts of mechanisms of action and effects at molecular, cellular, organ, total body levels.

G979 Radiology Literature Evaluation (1 cr.) Evaluation of scientific and radiological literature; principles of research and scientific writing.

G980 Advanced Surgical Endodontics (1-6 cr.)

P: G956 and G957. Principles of advanced surgical endodontics.

- G981 Principles of Restorative Dentistry (1-4 cr.) Interdepartmental course; operative dentistry, pedodontics, fixed and removable partial prosthetics.
- G982 Clinical Field Studies (1-3 cr.) Preliminary preparations for clinical field study including delineation of purpose, review of history, methods, personnel needed, equipment, sample size, data to be collected, study sites, etc.; review of projects with opportunity to prepare field study outline.

G983 Dental Problems of Special Population Groups (1-3 cr.) Health and dental problems of chronically ill, aged, handicapped, institutional patients; methods of care.

G985 Fluoride Metabolism (2 cr.)

History, clinical studies, pharmacology, toxicology, biochemistry of fluoride compounds; current evaluations of newer methods of using fluoride compounds.

- G986 Histopathological Laboratory Techniques (1 cr.) Preparation of soft tissue for microscopic study; special techniques with decalcified specimens; special staining procedures.
- G987 Principles of Applied Oral Medicine (1-4 cr.) Interdepartmental course; phases of dentistry requiring an understanding of patient's general health; disciplines covered are oral diagnosis, endodontics, periodontics, radiology.
- G988 Principles of Oral Surgery (1-4 cr.) Interdepartmental course on principles of oral surgery; disciplines covered are oral histology, oral pathology, and oral surgery.
- G989 Principles of Pediatric Dentistry (1-4 cr.) Interdepartmental course covering dental care of children; disciplines covered are pedodontics, orthodontics, fundamentals of occlusion.
- G990 Advanced Anatomy (1-3 cr.)

Gross anatomical features of human body.

G991 Advanced Anatomy and Physiology of Head and Neck. (1-4 cr.) Surgery oriented dissection of all of the structures of the head and neck. The neuro-muscular physiology in mastication or gnathology, deglutition and speech.

G992 Biology of the Tooth and Periodontium (1-4 cr.) Microscopical study of tooth and periodontium; response of tissues to pathology, instrumentation, filling materials used in operative, endodontic, crown and bridge procedure; animals used to illustrate response of tooth tissues to these procedures.

G993 Animal Experimental Procedures (1-3 cr.) Handling of animals and observation of results; student develops an outline of exercises best suited for his particular interests.

G994 Applications of Genetic Principles to Problems in Dentistry (2 cr.)

General principles of human genetics; importance of genetics to problems encountered in dentistry. G995 Biostatistics as Applied to Public Health Problems (1-4 cr.)

Collection. tabulation, elementary analyses of data, including vital statistics, treatment of rates, distribution of variates sampling variation.

G996 Epidemiology (1-3 cr.) Principles of epidemiology; dental caries, periodontal disease, malocclusion, dental health problems of special population groups.

G997 Environmental Health (2 cr.)

Field trips to water and sewage treatment plants, dairies, food processing plants including vending machine facilities; basic environmental health and sanitary science; fluoridation and radiation hygiene

G998 Community Health Programming and Services (1-4 cr.)

Public health practices; health and human behavior; health education in public health; group purchasing plans including pre and post payment, open and closed panels, indemnity and co-insurance programs offered by profit and not-for-profit organizations.

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G999 Public Health Practice (1-6 cr.)

Functions, scope, and historical background of public health; organization of official and voluntary public health agencies; maternal and child health, mental health, public health, nursing, hospital services, dental health.

R900 Theoretical Mechanics (2 cr.)

Statics and strength of materials reviewed and applied to specific orthodontic problems; biophysics of tooth movement, appliances in equilibrium, energy storage in orthodontic appliances.

R901 Cleft Palate Rehabilitation (2 cr.)

Complete management of cleft lip and/or cleft palate patients from birth to adulthood; multidisciplined concept.

R902 The Biology of Growth and Differentiation (2 cr.)

Biologic sequence of events whereby a single, totipotent fertilized ovum becomes, through progressive growth and differentiation, a series of highly specialized cells performing limited activities. R903 Roentgenographic Interpretation of the Face and Skull (3 cr.)

Extraoral roentgenography of facial bones and skull, sialography, planography, diagnosis of facial trauma.

R904 Anesthesia Clinic and Seminar (cr. arr.)

General anesthesia as applied in the operating room for all types of surgical problems as well as for dental procedures for ambulatory outpatients.

R905 Advanced Oral Surgery (1-3 cr.)

Major and minor advanced oral surgical procedures, treatment planning and variable approaches to similar problems; development of surgical judgment.

R906 Advanced Oral Surgery Seminar (1-3 cr.)

Broad background for advanced oral surgery; interpretation of physical findings, special laboratory procedures and evaluations, changing concepts in antibiotic and chemotherapeutic treatment, medicolegal aspects of surgery.

R907 Research: Oral Surgery (1-6 cr.)

R908 Speech Pathology-Speech Science (1-6 cr.)

Speech pathology and audiology; etiologic and rehabilitative aspects of speech, language, and hearing disorders.

R909-R910-R911 Advanced Preventive Dentistry I-II-III (2-2-1 cr.)

Basic concepts and theories relative to the promotion of oral health, etiology, and approaches to the prevention of oral diseases: their application to clinical practice, community dentistry, and dental research.

R912-R913 Clinical Preventive Dentistry I-II (2-1 cr.)

Application of preventive dentistry concepts, principles, and techniques to dental patients. Patient education and motivation.

R914 Statistics (2 cr.)

Problems of experimental design, including statistical methods for handling measures of central tendency, variation, reliability, significance; determination of significance.

R915 Occlusion (1-4 cr.)

This two-semester course includes a comprehensive consideration of published research in occlusion, temporomandibular joint disturbances, and muscle problems. Clinical evaluation and treatment procedures are considered.

R916 Scientific Writing (2 cr.)

This course is designed to inform graduate students of techniques of writing and editing which will help them in their writing projects in graduate school and in their future careers.

R917 Joint Case Management Seminar (1 cr.)

This course will present the didactic and clinical aspects of diagnosis and treatment planning for patients with complex dental problems. Class sessions will include discussions of pertinent literature in periodontics and restorative dentistry as well as the diagnosis and treatment planning of actual clinical cases.

Students who have as their objective a career in education and research are encouraged to complete a minor from the following selection of graduate courses in the School of Education. Complete descriptions of these courses can be found in the Bulletin of the School of Education, Graduate Division.

C675 Supervised College Teaching (2-3 cr.)

P508* Practicum in Measurement (2-3 cr.)

P510 Psychology in Teaching (2-3 cr.)

R566* Audio-Visual Communications in Formal Education (2-3 cr.)

^{*}Prerequisites will be waived for dental students.

- ADAMS, HAROLD S., B.S. (Massachusetts State College, 1929), Director of the Environmental Health Program (Public Health), and Associate Professor of Public Health (School of Medicine)
- ADAMS, JAMES W., D.D.S. (The Ohio State University, 1936), Consultant in Orthodontics

ADAMS, LEHMAN D. JR., D.D.S. (Indiana University, 1949), Instructor in Oral Surgery

ALLEN, EVELYN M., M.L.S. (Indiana University, 1966), Assistant Librarian

- Amos, DAVID T., D.D.S. (Indiana University, 1955), Assistant Professor of Dental Sciences
- ANDERSON, JOSEPH E., D.D.S. (Indiana University, 1961), Lecturer in Anatomy (School of Medicine)
- ANDREW, WARREN A., Ph.D. (University of Illinois, 1936), M.D. (Baylor University, 1943), Chairman, and Professor of Anatomy (School of Medicine)
- ARBUCKLE, GORDON RUSSELL, D.D.S. (Indiana University, 1970), Instructor in Orthodontics

ARENS, DONALD E., D.D.S. (Indiana University, 1959), Assistant Professor of Endodontics

- ASHMORE, JAMES E., Ph.D. (St. Louis University, 1955), Chairman, and Professor of Pharmacology
- AVERY, DAVID R., D.D.S. (Indiana University, 1966), Chairman of Undergraduate Pedodontics, and Assistant Professor of Pedodontics
- BACH, JOHN W., D.D.S. (Indiana University, 1949), Instructor in Operative Dentistry
- BAILEY, JOHN W., D.D.S. (Indiana University, 1966), Instructor in Operative Dentistry
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