

# INDIANA UNIVERSITY

Bulletins for each of the following academic divisions of the University may be obtained from the Office of Records and Admissions, Bryan Hall, Indiana University, Bloomington, Indiana 47405.

COLLEGE OF ARTS AND SCIENCES DIVISION OF OPTOMETRY DIVISION OF SOCIAL SERVICE SCHOOL OF BUSINESS SCHOOL OF DENTISTRY SCHOOL OF EDUCATION\* DIVISION OF LIBRARY SCIENCE GRADUATE SCHOOL SCHOOL OF HEALTH, PHYSICAL EDUCATION, AND RECREATION NORMAL COLLEGE OF THE AMERICAN GYMNASTIC UNION SCHOOL OF LAW SCHOOL OF MEDICINE DIVISION OF ALLIED HEALTH SCIENCES SCHOOL OF MUSIC SCHOOL OF NURSING DIVISION OF UNIVERSITY EXTENSION SUMMER SESSIONS

<sup>\*</sup> A separate Bulletin is issued for the Graduate Division of the School of Education.



Of the University.

BULLETIN OF THE SCHOOL OF DENTISTRY INDIANA UNIVERSITY

She Douis H. Meastry, M.D. Assistant Dean for Rewards. Assistant for the Property Through Property Pro

# ADMINISTRATIVE OFFICERS

# Of the University

ELVIS J. STAHR, B.C.L., LL.D., President of the University

HERMAN B WELLS, A.M., LL.D., Chancellor of the University; President of the Indiana University Foundation

SAMUEL E. BRADEN, Ph.D., Vice-President, and Dean for Undergraduate Development J. A. FRANKLIN, B.S., Vice-President, and Treasurer

LYNNE L. MERRITT, JR., Ph.D., Vice-President for Research, and Dean of Advanced Studies

JOSEPH L. SUTTON, Ph.D., Vice-President, and Dean of the Faculties

- CHARLES E. HARRELL, LL.B., Registrar, and Director of the Office of Records and Admissions (until January 1, 1967)
- DON SCHERER, Registrar, and Director of the Office of Records and Admissions (effective January 1, 1967)

# Of the Medical Center

KENNETH E. PENROD, Ph.D., Provost for the Medical Center, and Professor of Physiology MRS. DORIS H. MERRITT, M.D., Assistant Dean for Research; Assistant to the Provost;

Director, Division of Sponsored Programs, and Assistant Professor of Pediatrics

DANIEL P. BENFORD, B.S., Assistant Director and Administrator, Division of Sponsored Programs

WILLIAM A. MCLEES, Ph.D., Director, Division of Plans and Development

ELTON T. RIDLEY, M.B.A., Director of Hospitals

DONALD R. FRANKLIN, B.S., Assistant Director of Hospitals (Finance)

THOMAS A. HANNA, JR., A.B., Assistant to the Director of Hospitals

W. DONALD CLOSE, M.D., Assistant Director of Hospitals (Medical); Director of Postgraduate Medical Education, and Associate Professor of Medicine

DONALD E. SMITH, M.B.A., Associate Director of Hospitals

# Of the School of Dentistry

- MAYNARD K. HINE, D.D.S., Dean of the School of Dentistry, and Chairman and Professor of Periodontics.
- RALPH E. McDonald, D.D.S., Assistant Dean of the School of Dentistry, Secretary of Graduate Dental Education, and Chairman and Professor of Pedodontics.
- ROBERT L. BOGAN, D.D.S., Assistant to the Dean of the School of Dentistry, and Assistant Professor of Crown and Bridge and Partial Denture.
- GLEN O. SAGRAVES, D.D.S., Director of the Dental Clinic, and Assistant Professor of Oral Diagnosis.

(Mrs.) CLEONA HARVEY, Administrative Assistant to the Dean, and Recorder.

(Mrs.) RUTH CHILTON, Administrative Secretary.

# INDIANA UNIVERSITY BULLETIN (OFFICIAL SERIES)

Second-class postage paid at Bloomington, Indiana. Published thirty times a year (five times each in November, January; four times in December; twice each in October, March, April, May, June, July, September; monthly in February, August) by Indiana University from the University Office, Bloomington, Indiana 47401.

Vol. LXIV, No. 4 Bloomington, Ind. 47401 January 20, 1966

# Calendar

# DENTAL SCHOOL

	1965-66	1966-67
Radiology orientation for	Sand 16 17 Th F	Sant 0 0 Th E
second-year dental hygienists Orientation and registration for		
freshman dental students and	S+ 16 17 Th E	Cart O O Th E
dental hygienists Teaching Conference	Sept. 10, 17, 11, F	Sept. 11-14, Sun-W
Registration for sophomore, junior, and senior dental students		
Classes begin for freshmen dental students		
and dental hygienists Classes begin for sophomore, junior, and	Sept. 20, M	Sept. 12, M
senior dental students	Sept. 21, T	Sept. 13, T
Registration and student conferences for graduate students	Sept 16 17 Th F	Sept 15 16 Th F
Dental Alumni Days-Bloomington		
(classes will meet as usual) Thanksgiving recess begins	Sept. 23-25, Th-S	Oct. 6-8, Th-S
(clinics closed)	Nov. 24, W, 12 noon	Nov. 22, T, 5 p.m.
Thanksgiving recess ends Christmas recess begins	Nov. 29, M, 8 a.m	Nov. 28, M, 8 a.m.
(clinics closed) Christmas recess ends	Dec. 22, W, 12 noon	Dec. 22, Th, 12 noon
Final examinations begin	Jan. 24, M.	Jan. 13, F
Final examinations begin First semester ends	Jan. 28, F, 5 p.m	Jan. 19, Th, 5 p.m.

### Second Semester

First Semester

Classes begin for all dental students and dental hygienists	Fab 7	M	Inn 93 M
Registration and student conferences	reb. /	, IVI	. jan. 45, w
for graduate students	Feb. 4	, F	.Feb. 3, F
Good Friday (clinics closed)	Apr. 8	I, F	.Mar. 24, F
Spring recess begins (clinics closed)	Apr 7	Th 5 pm	Apr 7 F 5 pm
Spring recess ends	Apr. 1	2, T, 8 a.m	.Apr. 17, M, 8 a.m.
Final examinations begin	May 2	7, F	.May 19, F
Second semester ends	June 3	F, 5 p.m	May 26, F, 5 p.m.
Commencement	June 1	13, MI	.June 5, M

### Summer Sessions

Summer session begins 8:30 a.m.	June 6, M	June 6, T
Independence Day	.July 4, M	July 4, T
Clinics closed	.Aug. 5, F, 5 p.m	Aug. 4, F, 5 p.m.
	to Sept. 6, T	to Sept. 5, T,
	8:30 a.m.	8:30 a.m.
Summer session ends	.Sept. 9, F	Sept. 8, F

# Calendar, 1966-67 BLOOMINGTON CAMPUS

### **First Semester**

New student meetings—Junior Division	
Registration	Sept. 14, 15; W, Th
Classes begin Mid-term reports due	
Thanksgiving recess begins (after last class)	Nov. 23, W
Classes resume	Nov. 28, M, 7:30 a.m.
Christmas recess begins (after last class) Classes resume	
Classes end	Jan. 4, W, 7:30 a.m. Jan. 18, W
Review Day	
Exams begin Exams end	

# Second Semester

New student meetings	Jan. 31, T
Counseling	
Registration	
Classes begin	
Mid-term reports due	Mar. 24, F, 5 p.m.
Spring recess begins (after last class)	Mar. 24, F
Classes resume	
Founders' Day*	
Classes end	
Review Day	
Exams begin	
Memorial Day holiday	
Exams end	
Commencement	June 12, M, 10 a.m.

# Summer Sessions

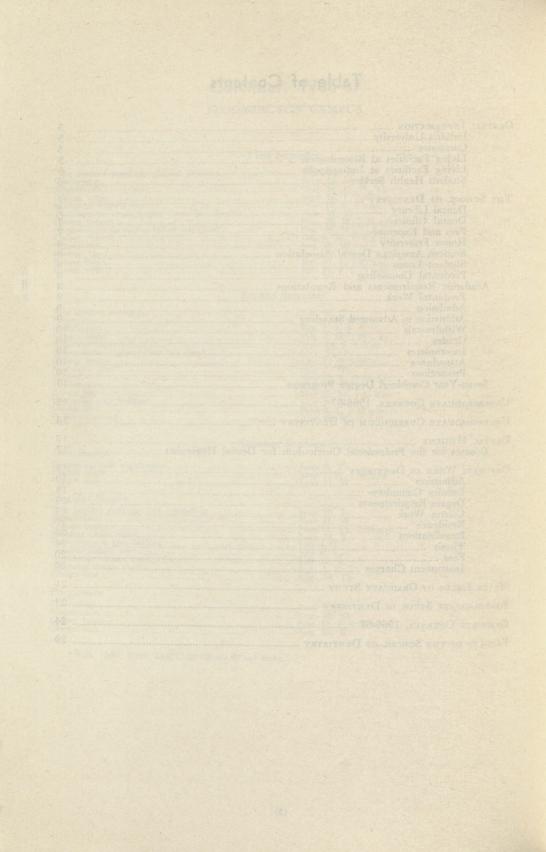
1 niersession	
Counseling and registration	June 6, T
Classes begin	June 7, W, 7:30 a.m.
Classes end	June 21, W
Regular Session	
New student meetings and counseling	June 20, T
Registration	
Classes begin	June 22, Th, 7:30 a.m.
Monday classes meet	June 24, S
Independence Day holiday	
Tuesday classes meet	
Wednesday classes meet	July 22, S
Thursday classes meet	Aug. 5, S
Classes end	
Postsession	
Counseling	Aug. 9. W
Registration	Aug. 10, Th
Classes begin	Aug. 11, F, 7:30 a.m.
Classes end	Aug. 26. S

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

Intersection

# Table of Contents

GENERAL INFORMATION	5
Indiana University	5
Campuses	5
Living Facilities at Bloomington	5 5
Living Facilities at Indianapolis	5
Student Health Service	6
THE SCHOOL OF DENTISTRY	7
Dental Library	7
Dental Clinics	7
Fees and Expenses	7
Honor Fraternity Student American Dental Association	8 8
Student Loans	
Predental Counseling	8
Academic Requirements and Regulations	
Predental Work	8
Admission	9
Admission to Advanced Standing	9
Withdrawals	
Grades Incompletes	
Attendance	
Promotions	10
Seven-Year Combined Degree Programs	10
Undergraduate Courses, 1966-67	12
Undergraduate Curriculum in Dentistry	16
DENTAL HYGIENE	17
Courses for the Professional Curriculum for Dental Hygienists	17
GRADUATE WORK IN DENTISTRY	
Faculty Committee	
Degree Requirements	
Course Work	
Residence	
Examinations	
Thesis	
Fees Instrument Charges	
Major Fields of Graduate Study	
Postgraduate Study in Dentistry	
GRADUATE COURSES, 1966-67	
FACULTY OF THE SCHOOL OF DENTISTRY	29



# **General Information**

Indiana University. Created in 1820 by an act of the general assembly, Indiana University has grown until it is now ranked the twelfth largest university in the nation in terms of full-time enrollment. The University is composed of ten academic schools and divisions, with a faculty exceeding 2,500. To meet the needs of approximately 41,000 full- and part-time students, the University offers 5,000 courses of instruction in more than 100 departments. Its graduate divisions offer 19 advanced degrees in 62 areas.

Students from all fifty states and from many foreign nations are enrolled on its main, Medical Center, and regional campuses. Indiana University is in year-round operation, with two regular semesters and a three-session summer program which is one of the largest in the nation.

Campuses. The main campus of the University at Bloomington 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, while 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.

The 80-acre Medical Center Campus, located less than one mile from downtown Indianapolis, encompasses the Schools of Medicine, Nursing, and Dentistry, and the Division of Allied Health Sciences. On this campus are numerous academic and administrative buildings, clinical and research laboratories, residence halls, and the Union Building. The Medical Center has extensive hospital and clinical facilities which provides students with practical experience in patient care and health education.

Regional campuses and centers, most of them in new buildings and expanded settings, are located in East Chicago, Fort Wayne, Gary, Indianapolis, Jeffersonville, Kokomo, Richmond, South Bend, and Vincennes.

Additional University facilities include Bradford Woods, Crooked Lake, the Geologic Field Station in Montana, the Monroe County Reservoir biology site, the Goethe Link Observatory, and Camp Brosius at Elkhart Lake, Wisconsin.

Living Facilities at Bloomington. The Halls of Residence system at Indiana University, recognized as outstanding among universities throughout the country, includes housing units for graduate, married, and single students. All freshman women, except those exempted by the Dean of Students on the basis of employment or local residence with relatives, are required to live in either the University Halls of Residence or in officially approved private dormitories. Other housing accommodations are available in private homes, approved by the University, and in fraternity and sorority houses.

Rates in the Halls of Residence range from \$655 to \$940 an academic year for single housing and from \$50 to \$155 a month for married housing apartments or trailers. Less expensive accommodations for single students are provided in cooperative and residence scholarship housing units. Fraternity and sorority housing runs slightly higher than Halls of Residence. When requesting housing accommodations in the University Halls of Residence, a \$25 deposit must be forwarded with the application. The Off-Campus Housing Office maintains a list of private rooms. Housing offices are located at 801 North Jordan, Bloomington, Indiana 47401.

Living Facilities at Indianapolis. Single and married students from all Indiana University Indianapolis schools and divisions are eligible to file housing applications for

#### INDIANA UNIVERSITY

accommodatons 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 \$45 to \$54.25 per month, and single rates are \$65 per month. Accommodations for single men are also available in the Winona Village temporary dormitory buildings at \$32 to \$40 per month per person.

Rates for apartments for married students vary from \$82.50 to \$110 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 \$53 per month.

Rates are subject to change by action of the Trustees.

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 46207. 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. The Indiana University Medical Center offers a health service for students of the Schools of Medicine, Nursing, and Dentistry, for the Divisions of Allied Health Sciences and Social Service, and for the Normal College of the American Gymnastic Union. Designed to promote the general health of students, the service offers complete clinical and laboratory examination, dispensary or infirmary care for minor illnesses, and limited hospital care for major illnesses or surgical operations. Health insurance, including coverage for dependents, is available to all students.

# 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 50 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 the Fort Wayne Regional Campus, 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 a B.S. degree in dentistry or an A.B. degree, both 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 almost 70,000 items, of which approximately 23,000 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 566 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 Clinic served more than 15,000 persons.

The School also maintains dental clinics in Riley and Long Hospitals, both 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.

#### Fees and Expenses:

FEES

rees and Expenses.	Legal Residents of Indiana	Out-of-State Residents
Arts and Sciences (per credit hour)	\$11	\$32
Regional Campuses (per credit hour) Undergraduate Graduate		32 26
Summer Sessions (per credit hour) Undergraduate Graduate		32 11
Dental Hygiene (per credit hour)		32
*Dentistry (per semester)		500
†Admission Application		10

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

<sup>†</sup> This fee is paid only once, is not refundable, and is not applied to other fees. Students applying for admission to the dental school who have never attended Indiana University as a regularly admitted student (on the Bloomington or any Regional 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

First Year	Second Year	Third Year	Fourth Year
Dental Textbooks (approximate)\$170	\$ 90	\$ 80	\$20
*Dental Instruments (approximate) 425	1,050	350	(Assistance)
Dental Hygiene Textbooks, Instruments, and Uniforms (approximate) 250	100		

Fee Refund Schedule (Medical Center Campus and regional campuses)

First and Second Semester First Week (until class change day)	100%
Second Week	75%
Third Week Fourth Week	
Thereafter	0
Summer Session (all campuses) First Week (until class change day)	100%
Second Week	
Thereafter	0

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-third of the graduating class, with membership being voted annually by the faculty members to 12 per cent of the class. The key, which is symbolic of the fraternity, is awarded to each newly-elected member.

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.

Student Loans. The School maintains a loan fund for students who would otherwise be unable to continue their dental education. This fund is available during their last three years of work. Financial assistance is also available through the Health Professions Loan Program and the Indiana State Dental Association. Loans from the later two sources may be secured by members of all four classes. Arrangements may also be made through commercial banks for various types of loan programs.

**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 dental 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 dental advisers on the Bloomington Campus also appear periodically in the information column of the Indiana Daily Student.

# ACADEMIC REQUIREMENTS AND REGULATIONS

Predental Work. Since very few students are accepted by the Indiana University School of Dentistry with the minimum of two years of predental courses (unless they have a B average or better) the suggested predental curriculum is built around a threeyear and, 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

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

#### SCHOOL OF DENTISTRY

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.

In addition to science courses, courses in the social sciences, humanities, foreign languages, in some cases mathematics, literature, philosophy, and the arts are highly recommended. In that the prescribed curricula do vary so 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 I-II (Speech S121-S122) and courses from Groups IVA and IVB listed on page 11.

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 preceeding 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. Applicants must take a dental aptitude test, which must be in possession of the Committee on Admissions in ample time to allow consideration of the results along with the applicants' other records. Details concerning this test may be obtained by contacting the School (see back cover) or by writing the American Dental Association, 222 East Superior Street, Chicago, Illinois.

4. Official transcripts from *each college* attended reflecting a total minimum of 90 semester hours or at least 120 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

5. Credit points to equal 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 his chances of being accepted.

All entrance credentials must be approved by the Committee on Admissions of the School of Dentistry. The Committee may request a personal interview with an applicant. Other factors being equal, 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 two years, and includes completion of all the routine senior requirements.

\* 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. 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 temporarily a grade of Incomplete if the instructor has reason to believe the absence was beyond the student's control. The Committee on Absence of the Office of the Dean of Students reviews excuses for absences from final examinations and notifies instructors of its decisions.

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 per cent of the time scheduled for instruction. The margin of 15 per cent is intended only for unavoidable absence due to illness, death of relatives, delayed registration, 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 per cent during the school year, the student may be permitted to make up 10 per cent of the required 85 per cent 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 an equal number of hours and credit points. 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 PROGRAMS

A student entering the School of Dentistry from the College of Arts and Sciences at the end of three years of study may be eligible for the A.B. degree of the College or for the B.S. degree in dentistry, provided the requisite undergraduate courses have been completed prior to admission to the School of Dentistry. All baccalaureate degree candidates must complete at least one year (26 semester hours) in residence on the Bloomington Campus.

#### 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, exclusive of military training and physical education, 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.

#### B.S. in Dentistry/D.D.S. Program\*

This curriculum requires the completion of 90 hours in the College of Arts and Sciences, exclusive of military training and physical education; the final 32 hours of the required 122 may be earned the first year in dentistry. The specific group requirements are as follows:

Group I, English composition, 4 hours†; Group II, proficiency equal to first college year in a foreign language; Group III A, 5-10 hours in one department; Group III B, 5-10 hours in one department; Group IV A, 6 hours in one department; Group IV B, 6 hours in one department; Group V, concentration group, 25 hours in one department.‡

Subjects included in Group IV A and IV B electives are listed below. Choice of electives taken should be approved by the Recorder of the School of Dentistry or the Dean of the College of Arts and Sciences.

IV A. SOCIAL SCIENCES (six hours in one of the following groups)

Anthropology: A103-A104, A307-A308 (The study of man and his culture)

Economics: E201-E202, E300 (Economic principles)

Geography: G210, G313, G326 (Cultural and political geography) Government: G103-G104 (Introduction to American government)

History: H103-H104, H105-H106, H209-H210 (European, American, and English history)

Sociology: S161, and S162 or S163 (Principles of sociology, society and the individual, and social problems

IV B. LITERATURE, PHILOSOPHY, AND THE ARTS (six hours in one of the following groups)

The Arts: Comparative Literature C225, Fine Arts H100, Music M174, and Speech S240 (any three) (Modern literature and the arts, appreciation of art, music, and the theatre)

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

Classics: C250 and C260 (Literature of Greece and Rome) Comparative Literature: Third- or fourth-year courses

English: L101-L102 (Study of literary masterpieces)

Fine Arts: Courses in history of art

French, German, Italian, Portuguese, or Spanish: Third- or fourth-year courses of a literary character

Greek or Latin: Second-, third-, or fourth-year courses of a literary character

Music: M201-M202 (Introduction to music literature)

Philosophy: Six hours from the total departmental offerings, but must include at least one of the following: P100, P240, P250, P301, P302, or P350 (Historical introduction to philosophy, ethics, and logic)

Study of Religion: C153-C154 (Introduction to world religions)

Russian: R305-R306, or R363 and R364 (Russian literature and literary authors, in the original or in English translation); or R324 (Intensive intermediate Russian) Speech and Theatre: S247-S248 (Introduction to history of the theatre)

† The School of Dentistry requires 6 hours; public speaking, comparative literature, or English literature may be used in completing additional hours.

‡ It is recommended that students elect biology as their concentration group.

<sup>\*</sup> See also the general requirements in the 1966-67 Bulletin of the College of Arts and Sciences, pages 10-15.

# Undergraduate Courses, 1966-67

The letter before 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

D501-D502 Anatomy, Oral: Freshman I-II (2-3 cr.)

Morphological and junctional study of the teeth; their arrangement and occlusion.

Anatomy D511-D512 Human Anatomy: Freshman I-II. (5-5 cr.)

Gross anatomical features of human body; special emphasis on head and neck; lecture and laboratory. Anatomy D513 Histology: Freshman. (4 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.

#### **Basic Technics**

#### D521-D522 Basic Technics: Freshman I-II (4-4 cr.) Acquaints student with materials and techniques used in subsequent courses of study; fundamental principles of clinical dentistry.

#### **Biochemistry**

B505 Biochemistry for Dental Students: Freshman. (5 cr.) Chemical nature of major tissue constituents, intermediary metabolism, chemical regulation of body functions. Principles of nutrition; emphasis on biochemistry of teeth.

# Crown and Bridge and Partial Denture (Fixed and Removable Prosthodontics)

D604-D605 Crown and Bridge: Sophomore I-II (4-2 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, indications and contraindications for fixed bridges.

D610 Partial Denture Section: Sophomore. (4 cr.)

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

D701-D702 Crown and Bridge: Junior I-II. (5-1 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-D792 Partial Denture: Junior I-II. (2-2 cr.)

Plans for mouth preparation and designs for removable partial dentures, survey of clinical models, splinting, equilibration through grinding and restorative procedure.

D801-D802 Crown and Bridge: Senior I-II. (4-4 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 procelain, gold and plastic, and plastic and procelain.

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

# **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.

#### Endodontics

#### D606 Endodontics: Sophomore. (2 cr.)

Correlation of basic endodontic clinical procedures and related biologic principles.

D816 Endodontics: Senior.  $(\frac{1}{2} \text{ cr.})$ 

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

### Microbiology

Microbiology J650 Microbiology for Dental Students. (90 hrs.) (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**

D621-D622 Operative Dentistry: Sophomore I-II. (4-3 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.

D721-D722 Operative Dentistry: Junior I-II. (3-4 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.

D810 Advanced Operative Technique: Senior. (<sup>1</sup>/<sub>2</sub> cr.) Practical clinical examinations in fundamental procedures; seminars present new methods of tooth restoration; clinical sessions evaluate student performance and understanding of material.

D821-D822 Operative Dentistry: Senior I-II (4-3 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**

D711-D712 Oral Diagnosis: Junior I-II (1<sup>1</sup>/<sub>2</sub>-1<sup>1</sup>/<sub>2</sub> 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<sup>1</sup>/<sub>2</sub>-1<sup>1</sup>/<sub>2</sub> 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.

#### Oral Rehabilitation

D808 Rehabilitation: Senior (1 cr.)

Lectures by representatives of medical, dental, and allied health specialties emphasizing multidisciplinary approach in rehabilitation of patients with congenital and acquired oral facial defects.

### **Oral Surgery**

D706 Principles of Surgery: Junior (1 cr.)

Fundamental principals of surgery as applied to the mouth.

D731-D732 Oral Surgery: Junior I-II (11/2-11/2 cr.)

Lectures, demonstrations, clinical practice in local anesthesiology, surgical anatomy, basic principles of surgery; diagnosis and treatment of diseases and infections of face, neck, oral cavity, 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. D831-D832 Oral Surgery: Senior I-II  $(1\frac{1}{2}-1\frac{1}{2} \text{ cr.})$ 

Lectures, seminars, clinical practice, and demonstrations of diagnosis, treatment planning; surgical treatment of oral disorders, including tumors, impacted teeth, alveolar abscesses, deformities, harelip, cleft palate, and mandibular and manillary fractures.

#### INDIANA UNIVERSITY

# Orthodontics

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

Normal occlusion-dental, skeletal, neuromuscular patterns; diagnosis of dento-facial abnormalities, 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

General 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 lectures and a laboratory course covering microscopic and clinical picture of oral leisions. Close association maintained with clinical dental departments.
- D815 Senior Pathology Conference: Senior (1 cr.) Interesting clinical cases are studied grossly, radiographically, and histologically; diagnosis established and proper method of treatment outlined.

### 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.

D841-D842 Pedodontics: Senior I-II (2-1 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.

D751-D752 Periodontics: Junior I-II (1<sup>1</sup>/<sub>2</sub>-1<sup>1</sup>/<sub>2</sub> cr.) Periodontal diseases confronting the general practitioner, their etiology, symptomatology, accepted

Periodontal diseases confronting the general practitioner, their etiology, symptomatology, accepted methods of treatments.

D851-D852 Periodontics: Senior I-II (1<sup>1</sup>/<sub>2</sub>-1<sup>1</sup>/<sub>2</sub> cr.) Review of principles taught in preceding years; emphasis on instrumentation and clinical procedures; subject material provided by clinical cases.

# Pharmacology and Therapeutics

D705 Dental Therapeutics: Junior  $(1\frac{1}{2} \text{ cr.})$ 

Lectures and quizzes in rational use of drugs, supported by pharmacotherapeutics, toxicology, posology, materia dentica, prescription writing, clinical demonstrations.

D781-D782 Internal Medicine: Junior I-II (1-1 cr.)

The more important systemic diseases and drugs used in their treatment.

#### D793 Pharmacology: Juniors (1 cr.)

Lectures and quizzes; site and mechanism of typical drugs; drugs used most frequently in dentistry.

#### Physiology

#### 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, 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 on professional relation, its 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.

D714 Preventive Dentistry: Junior (1<sup>1</sup>/<sub>2</sub> 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.

#### **Prosthetic Dentistry**

D631-D632 Prosthetic Dentistry: Sophomore I-II (3-2 cr.)

Lectures and laboratory exercises in basic techniques; prepares student to solve clinical problems encountered in junior and senior years.

D761-D762 Prosthetic Dentistry: Junior I-II (2-1 cr.)

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

D861-D862 Prosthetic Dentistry: Senior I-II (3-3 cr.)

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

### Radiology

D703 Radiology: Junior  $(2I_2 \text{ cr.})$ 

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. Lecture and clinic.

D814 Radiology: Senior  $(I_2 \text{ cr.})$ 

Seniors are assigned to 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.

# Summer Session

Clinical Dental Procedures (6 cr.)

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

D400 Clinical Procedures: Juniors (3 cr.)

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

D401 Clinical Procedures: Seniors (6 cr.)

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

# Undergraduate Curriculum in Dentistry

# Freshman Year

		nester	Second .		T . 1	Tel
		Laboratory or Clinic		Laboratory or	Total Credit	Total Clock
Courses	Lecture		Lecture	Clinic	Hours	Hours
History Oral Anatomy		21	0	02	45	90 142 <sup>1</sup> / <sub>2</sub>
Physiology	. 0	0	3		6	135
Human Anatomy	. 2	3 2 0	20	3 3 0	10 5	240
Biochemistry		ó	1	o and o and the second	and 100 m	105 15
History of Dentistry Basic Technics		3	0	0	1	15
Oral Histology and Embryology		20	2	2	82	210 45
	parties was	pindset has	i miqueofide	t sympolisizaru	u <u>tali</u> nah i	alter and
Total					42	9971/2
and the second second second second second		nore Year				
Prosthetic Dentistry	and the	2 3 2 0	stister is Se		5 7 6	120 180
Operative Dentistry Crown and Bridge	2	2	i i i	í	6	135
Microbiology	. 0	Ō	2	2 noinu	4	90
General Pathology Dental Materials	$2 \\ 2 \\ 1 \\ 1$	20	0	est 0 todie	4 3 2 3	90 45
Fundamentals of Occlusion	1	ŏ	1	ő	2	30
Oral Pathology Partial Denture	. 0	0	2	and interest	3	60
Partial Denture Endodontics	. 0	0	2	2	4 2	90 45
Periodontics		Ő	i	Ô	1	15
Total					41	900
10(4)					41 deciding	500
		or Year			_	055
Operative Dentistry Prosthetic Dentistry	. 1	2	$1 \\ 0$	3	$     \begin{array}{c}       7 \\       3 \\       6 \\       2^{1/2} \\       2^{1/2}     \end{array} $	255 105
Prosthetic Dentistry Crown and Bridge Pharmacology and Dental Therapeutics Radiology Orthodontics	2	3	Ő	i	6	135
Pharmacology and Dental Therapeutics	1	Ō	1	1/3	21/2	45 52 <sup>1</sup> / <sub>2</sub> 52 <sup>1</sup> / <sub>2</sub>
Orthodontics	1	0	0	1/2	21/2	521/2
Urai Diagnosis	1	1/2	î	1/2	3'1	75
Periodontics	1	1/2	1	1/2	3	75
Oral Surgery Principles of Surgery Internal Medicine	0	0 1/2	1	0 1/2	21/2 3 3 3 1 2	75 15
Internal Medicine	1	Ō	ī	Ō	2	30
Pedodontics	. 0	0	1	0	1	15 15
Nutrition	0	0	2	072	2 2	30
Partial Denture	2	0	1	1	4	90
Preventive Dentistry	0	0	0	1/2	1/2	221/2
Total					431/2	1,0871/2
		or Year				
Applied Anatomy Operative Dentistry Advanced Operative Technique Pedodontics	1	03	0 0	0 0	17	15
Advanced Operative Technique	10	3	00	0 3 0	7	285 15
Pedodontics	1	1 72	ő	to 1 of zie	3 2	105
		3	1	3	83	300
Oral Diagnosis		1/2	1	1/2	3	75 45
Oral Diagnosis Periodontics	0	1/2	0	1/2	1	45
Prosthetic Dentistry Practice Management Jurisprudence	1	20	1	2	6	210
Practice Management	0	0	1	Ō	1	15 15
Public Health	The second s	000	Ô		î	/ 15
Preventive Dentistry	0	0	1		1	$15 \\ 22^{1/2}$
Radiology	0	0	0	$0^{\frac{1}{2}}$	1 1/2	15
Endodontics Partial Denture	0	0 0	Ô	1/2	1/2	221/2
Partial Denture	0	1	0	1	2	90 15
Anesthesiology Orthodontics		0 0	0	0 0 0	1	15
Rehabilitation	1	0	0 0	ŏ	î	15
Total					411/2	1,350

This schedule is subject to change.

# **Dental Hygiene**

Dean and Professor Hine; Professors Phillips, Shafer, Starkey, Van Huysen; Associate Professor Ping; Assistant Professors Fisk (Director), Beck, Norman, Schimmele, Standish; Instructors Ackerman, Hamilton, Herman, Totten. In addition, staff includes faculty members from the School of Medicine, the Indianapolis Downtown Campus, and the Indiana State Board of Health.

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

The first or freshman year may be taken at any college or university but courses must be comparable to those offered by Indiana University in order to transfer for credit. The second and third or sophomore and junior years must be taken in the School of Dentistry, Indiana University in Indianapolis, or the Indiana-Purdue Regional Campus in Fort Wayne. The fourth or senior year must 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 (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, Long, and Marion County General Hospitals.

- 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.

# Courses Outside the School of Dentistry

Allied Health E443 Public Health Education Methods (3 cr.)

Allied Health H301 Public Health Organization and Administration (3 cr.)

Allied Health S321 Principles of Environmental Health (3 cr.)

HPER H160 First Aid (1 cr.) (Second Year)

Microbiology J207 Microbiology for Dental Hygiene Students (3 cr.) (First Year)

Psychology P101 Introductory Psychology I (3 cr.)

Psychology P102 Introductory Psychology II (3 cr.)

Sociology S309 The Community (3 cr.)

# Graduate Work in Dentistry

Dental Graduate Faculty: Dean and Professor Hine (Chairman); Assistant Dean and Professor McDonald (Secretary), Research Professor Muhler (Co-Chairman); Professors Dykema, Healey, Hopper, Johnston, Mitchell, Phillips, Shafer, Van Huysen; Associate Professors Burstone, Cunningham, Gilmore, Standish, Swartz; Assistant Professors Baldwin, Beck, Bixler, Callis, Garner, Gifford, Gish, Hansen, Herman, Mumford, Norman, and Stookey.

Advisory Faculty: Professors Bailey, Boyd, Gregory, Swenson; Instructor Tchalian.

The Master of Science in Dentistry (M.S.D.) program is intended primarily for students who have received their doctorate in dentistry and who are desirous of obtaining 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 speciality 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 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 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 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 \$11 a credit hour, and for nonresidents \$32 a 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:

Crown and Bridge	
Expendable Instruments	\$713
Rental fee	100 per calendar year
Endodontics	
a construction of the way way and a second of the second	
Instruments	233
Operative	
Instruments	360
Rental fee	100 per calendar year
Orthodontics	
	Charles and some family
Instruments	450
Pedodontics	
Expendable materials	55
Rental fee	70 per calendar year
builtue ou seemes . Cudt bas Rit	and Requirements for the L
Periodontics	
Instruments	295
Prosthetics	The boards Di this total of
Instruments	325
	010

# 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 desire to major or minor in their field. To meet this requirement the departments consider certain courses mandatory while others are highly desirable 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, G976, G977, G982

# CROWN AND BRIDGE PROSTHETICS

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, G976

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, G976 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, G976, 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, G976

Elective Courses: R901, G907, G908, G911, G941, G944, G956, G962, G965, G967, G974, G977, 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, G918, G965, G968, G969

Elective Courses: G904, G905, G959, G973, G974, G976, G977, G986

### ORAL PATHOLOGY

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

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

Elective Courses: G900, G908, G955, G959, G965, G992, G993, G994

#### INDIANA UNIVERSITY

# 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: G900, 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 Specialities, Genetics, Application Systems, Facial Malformations and Rehabilitation, Practice Management, Anthropology, Neuromuscular Physiology

# PEDODONTICS

Course Requirements: Major, 10-12 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, G976, G977, 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, G976, G991

#### PREVENTIVE DENTISTRY

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

Recommended Courses: G909, G910, G930, G967, G974, G976, G977, G982, G983, G985, G995, G996

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

# PROSTHETIC DENTISTRY

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, G976

# 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, G976, G977

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, G976, G977

# Postgraduate Study in Dentistry

Students who wish to take graduate courses in dentistry, but do not plan to work toward an advanced degree or who are not eligible to enter the Graduate Dental Program, may take certain courses as postgraduate students. 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, 1966-67

C605 General Pathology (1-5 cr.)

Fall quarter, broad fields of disease. Winter quarter, inflammation and infection, studying material in classroom and at autopsy. Spring quarter, disease related to anatomic systems correlated with clinical subjects.

G900 Statistics (2 cr.)

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

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 (<sup>1</sup>/<sub>2</sub> 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 Prosthetic 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 Prosthetic Clinic (1-6 cr.)

Clinical practice following advanced theories and practices suggested in G914.

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

Treatment of patients with difficult and unusual prosthetic denture problems.

- G917 Maxillofacial Prosthesis (1 cr.) Rehabilitation of patients with cleft palate and loss of tissue from tumors, accidents, war injuries, congenital diseases.
- G918 Research: Oral Diagnosis-Oral Medicine (cr. arr.)
- G919 Research: Prosthetics (cr. arr.)
- G920 Research: Oral Pathology (cr. arr.)
- G921 Research: Dental Materials (cr. arr.)

- G922 Research: Pedodontics (cr. arr.)
- G923 Research: Crown and Bridge Prosthetics (cr. arr.)
- G924 Research: Radiology (cr. arr.)
- G925 Research: Operative Dentistry (cr. arr.)
- G926 Research: Endodontics (cr. arr.)
- G927 Research: Orthodontics (cr. arr.)
- 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 Denture Prosthodontics (2-6 cr.)

Clinical construction of clasp-retained removable partial dentures, involving both normal mouths and those multilated by accidents or extensive surgery.

G938 Advanced Removable Partial Denture Technique (2-6 cr.) Incudes 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 multilated teeth to prepared form; multiple construction in one arch and in opposing arches.
- G940 Advanced Clinical Instruction in Crown and Bridge 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 Crown and Bridge 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, de'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 technics; various errors associated with oral radiographic technics; 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 General Radiography (2 cr.)

Applications in X-ray production, intra-oral and extra-oral technics, 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.
- 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.
- G956 Advanced Endodontics (1-6 cr.) Special endodontic problems involving advanced cases; correlation of treatment, history, prognosis.

G957 Analysis of Endodontic Theory (1-4 cr.) Medication, application, recent techniques; relationship to other branches of dentistry.

- 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 (4 cr.) Periodontal diseases relating to etiology, symptomatology, treatment, differential diagnosis.
- G968 Advanced Clinical Oral Diagnosis-Oral Medicine (1-4 cr.) Usual and unusual oral pathologic problems of patients.
- G969 Advanced Didactic Oral Diagnosis-Oral Medicine (2 cr.) Oral diagnostic techniques available correlated with clinical signs and symptoms of diseases involving teeth, pulp periodontium, contiguous tissues and anatomical areas.
- 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.

- G973 Vitamins, Mineral Metabolism, and Hormones (2 cr.) 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.
- G976 Advanced Preventive Dentistry (2 cr.) Theory by which soft tissue diseases and dental caries may be prevented; importance of chemicals, drugs, cosmetic agents in decreasing initiation of dental disease.
- G977 Preventive Dentistry Laboratory (1-3 cr.) Technique of caries-susceptibility tests which may be helpful to reduce oral diseases; relationship of nutritional survey data to oral health.
- 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 radiology literature; principles of research and scientific writing.
- G980 Advanced Surgical Endodontics (2-4 cr.) P: G956 and G957. Principles of advanced surgical endodontics.
- G981 Principles of Restorative Dentistry (2-4 cr.) Interdepartmental course; operative dentistry, pedodontics, crown and bridge, partial denture, prosthetics.
- G982 Clinical Field Studies (1-3 cr.)

Preliminary preparations for clinical field study including delineation 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.
- G984 The Psychology of Teaching Dental Subjects (1 cr.) Pertinent literature in areas of learning process, retention and transfer of training, personality factors in learning, measurement and test construction; solutions to instructional problems.
- 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 (2-4 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 (2-4 cr.) Interdepartmental course on principles of oral surgery; disciplines covered are oral histology, oral pathology, and oral surgery.
- G989 Principles of Pediatric Dentistry (2-4 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 of Head and Neck (1-3 cr.) Dissection of various structures of head and neck; emphasis on various age specimens; dental abnormalities.
- 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.

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 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 (6 cr.)

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

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

# Faculty of the School of Dentistry

ACKERMAN, MARTHA A., R.D.H. (University of Michigan, 1951), M.S. (1965), Assistant Director of Dental Hygiene, and Instructor in Dental Hygiene

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. (Ohio State University, 1936), Professor of Orthodontics

- ADAMS, LEHMAN D. JR., D.D.S. (Indiana University, 1949), Clinical Instructor in Oral Surgery
- ALUMBAUGH, CECIL E., D.D.S. (Indiana University, 1963), Teaching Associate in Operative Dentistry
- Amos, DAVID T., D.D.S. (Indiana University, 1955), Assistant Professor of Basic Sciences

ANDREW, WARREN A., Ph.D. (University of Illinois, 1936), M.D. (Baylor University, 1943), Chairman, and Professor of Anatomy (School of Medicine)

ARENS, DONALD E., D.D.S. (Indiana University, 1959), Instructor in Endodontics

- ASHMORE, JAMES E., Ph.D. (St. Louis University, 1953), Chairman and Professor of Pharmacology; Professor of Biochemistry (School of Medicine)
- BACH, JOHN W., D.D.S. (Indiana University, 1949), Instructor in Operative Dentistry BAILEY, LEWIS R., D.D.S. (Northwestern University, 1934), Professor of Prosthetic Dentistry
- BALDWIN, JAMES J., D.D.S. (Indiana University, 1954), Assistant Professor of Orthodontics

BARB, RICHARD E., D.D.S. (Indiana University, 1962), Instructor in Oral Anatomy

BARR, ERVINE B., D.D.S. (Indiana University, 1947), Instructor in Periodontics

BAUER, TRAVIS L., D.D.S. (Indiana University, 1964), Instructor in Operative Dentistry BEATTY, RALPH E., D.D.S. (Indiana University, 1958), Instructor in Oral Diagnosis

BEAURY, RALPH E., D.D.S. (Indiana University, 1936), Instructor in Oral Diagnosis Beavers, Thomas H., D.D.S. (Indiana University, 1944), Instructor in Oral Diagnosis

- BECK, JAMES O., JR., D.D.S. (Indiana University, 1959), Assistant Professor of Radiology
- BERGER, LEON W., D.D.S. (Indiana University, 1928), Lecturer in Practice Management
- BERGER, RICHARD L., D.D.S. (Indiana University, 1957), Instructor in Crown and Bridge and Partial Denture
- BERMAN, JACOB K., M.D. (Jefferson Medical College, 1921), Associate Professor of Surgery (School of Medicine)

BIGELOW, JOSEPH L., D.D.S. (Indiana University, 1959), Instructor in Oral Surgery

BIXLER, DAVID, Ph.D. (Indiana University, 1955), D.D.S. (1959), Assistant Professor of Basic Sciences

BOESINGER, ROBERT P., D.D.S. (Indiana University, 1935), Assistant Professor of Operative Dentistry

BOGAN, ROBERT L., D.D.S. (Indiana University, 1954), Assistant to the Dean, and Assistant Professor of Crown and Bridge and Partial Denture

BOONE, MALCOLM E., D.D.S. (Indiana University, 1962), Instructor in Prosthetics

BORKOWSKI, JOHN, D.D.S. (Indiana University, 1955), Assistant Professor of Crown and Bridge and Partial Denture

BORMAN, WILLIAM, D.D.S. (Indiana University, 1942), Instructor in Oral Diagnosis

BOYD, DREXELL A., D.D.S. (Indiana University, 1934), Professor of Operative Dentistry

- BRAUN, STANLEY, D.D.S. (Ohio State University, 1963), Assistant Professor of Orthodontics
- BREWER, HAROLD E., Ph.D. (Indiana University, 1958), D.D.S. (1959), Assistant Professor of Basic Sciences

BUCKLEY, ROBERT R., D.D.S. (Indiana University, 1957), Consultant in Pedodontics

BULLARD, ROBERT W., Ph.D. (University of Rochester, 1956), Acting Chairman, and Associate Professor of Anatomy and Physiology (School of Medicine)

- BURR, KENNETH W., M.S. (Indiana University, 1965), Lecturer in Practice Administration
- BURSTONE, CHARLES J., D.D.S. (Washington University, 1950), Chairman, and Associate Professor of Orthodontics
- CALLIS, ROBERT, D.D.S. (Indiana University, 1956), Assistant Professor of Orthodontics
- CARR, GUTHRIE E., D.D.S. (Indiana University, 1954), Instructor in Pedodontics
- CARR, JACK D., D.D.S. (Indiana University, 1939), Assistant Professor of Radiology
- CARR, MARJORY (Mrs.), M.S. (Butler University, 1954), Consultant in Pedodontics.
- CARR, W. KELLEY, D.D.S. (Indiana University, 1955), Consultant in Pedodontics
- CHALLMAN, JOHN, D.D.S. (Indiana University, 1964), First-Year Resident in Oral Surgery
- CHILDES, GEORGE T., D.D.S. (Indiana University, 1958), Instructor in Oral Surgery
- CLARK, CURTIS V., D.D.S. (Indiana University, 1964), Graduate Assistant in Crown and Bridge and Partial Denture
- CLARK, WILLIAM C., Ph.D. (University of Illinois, 1952), Associate Professor of Pharmacology
- CLEVELAND, BURTHAL JR., D.D.S. (Indiana University, 1961), Instructor in Orthodontics
- COMPTON, DUANE E., D.D.S. (Creighton University, 1961), Graduate Assistant in Endodontics
- CONNELL, THOMAS J., D.D.S. (Indiana University, 1960), Instructor in Crown and Bridge and Partial Denture
- CONRAD, WILLIAM I., D.D.S. (Indiana University, 1953), Instructor in Operative Dentistry
- CONVERY, LIAM P., B.D.S. (National University of Ireland (Ireland), 1961), Instructor in Pedodontics
- COONS, GALE E., M.P.H. (University of Michigan, 1954), Consultant in Public Health Dentistry
- CUNNINGHAM, DONALD M., D.D.S. (Indiana University, 1952), Chairman, and Associate Professor of Oral Rehabilitation
- DAFFRON, LOWELL, D.D.S. (Indiana University, 1965), Graduate Assistant in Operative Dentistry
- DAVIS, EDITH, D.D.S. (Indiana Dental College, 1912), Instructor in Periodontics
- DAVIS, WARREN B., D.D.S. (Indiana University, 1960), Assistant Professor of Pedodontics DEADY, MICHAEL J., D.D.S. (Indiana University, 1965), Intern in Oral Surgery.
- DELMAN, LLOYD A., D.D.S. (Indiana University, 1957), Instructor in Orthodontics
- DERRY, ROBERT H., D.D.S. (Medical College of Virginia, 1940), Associate Professor of Prosthetic Dentistry
- DYKEMA, ROLAND W., D.D.S. (Indiana University, 1947), Chairman, and Professor of Crown and Bridge and Partial Denture
- ERICKSON, ERICK D. M., D.D.S. (Indiana University, 1964), First-Year Resident in Pedodontics
- ERNSTING, RICHARD H., D.D.S. (Indiana University, 1952), Consultant in Crown and Bridge and Partial Denture
- ESMON, THOMAS, D.D.S. (Indiana University, 1944), Instructor in Operative Dentistry
- FAHMY, HASSAN H., B.Ch.D. (Cairo University Faculty of Dentistry (Egypt), 1938), Teaching Associate in Oral Diagnosis
- FAST, THOMAS B., D.D.S. (Ohio State University, 1958), Assistant Professor in Oral Diagnosis
- FELTEN, ARNOLD E., D.D.S. (Indiana University, 1950), First-Year Resident in Oral Surgery
- FISCHER, FRANCIS M., D.D.S. (Indiana University, 1964), Teaching Fellow in Pedodontics
- FISHER, ROBERT E., D.D.S. (Indiana University, 1958), Instructor in Operative Dentistry
- FISK, A. REBEKAH, R.D.H. (University of Pennsylvania, 1923), M.S. (Butler University, 1958), Director of the Public Health Dental Hygiene Program, and Assistant Professor in Clinic

FREY, JAMES D., D.D.S. (Indiana University, 1962), Lecturer in Dental Auxiliaries

- FRIEDMAN, JULIUS J., Ph.D. (Tulane University of Louisiana, 1953), Associate Professor of Physiology (School of Medicine)
- FRISSELL, CHARLES J., D.D.S. (St. Louis University, 1946), Lecturer in Dental Auxiliaries FRYAR, GENE M., D.D.S. (Indiana University, 1956), Instructor in Orthodontics
- GARNER, LAFORREST D., D.D.S. (Indiana University, 1957), Assistant Professor of Orthodontics
- GIFFORD, GEORGE T., M.S. (University of Georgia, 1955), Assistant Professor of Basic Sciences, and Assistant Professor of Biochemistry
- GILMORE, H. WILLIAM, D.D.S. (Indiana University, 1958), Acting Chairman, and Associate Professor of Operative Dentistry
- GILTNER, PHILIP III, D.D.S. (Indiana University, 1948), Instructor in Orthodontics
- GISH, CHARLES W., D.D.S. (Indiana University, 1949), Assistant Professor of Pedodontics, and Consultant in Public Health Dentistry
- GLANDER, KARL W., D.D.S. (Indiana University, 1956), Instructor in Orthodontics
- GRAHAM, LARRY L., D.D.S. (Indiana University, 1965) Intern in Oral Surgery
- GREELEY, JAMES, D.D.S. (University of Pennsylvania, 1959), Graduate Assistant in Crown and Bridge
- GREGORY, GEORGE T., D.D.S. (Indiana University, 1928), Professor of Oral Surgery, and Consultant in University Hospitals
- HALE, FLOYD E., D.D.S. (Indiana University, 1955), Instructor in Prosthetic Dentistry
- HALL, JOHN F., D.D.S. (University of Pittsburgh, 1934), Professor of Oral Surgery
- HAMILTON, CONSTANCE M. R. (Mrs.) R.D.H. (Indiana University, 1964), Instructor in Dental Hygiene
- HAMULA, WARREN, D.D.S. (Western Reserve University, 1954), Consultant in Orthodontics
- HANES, ROLENZO A., D.D.S. (Indiana University, 1940), Consultant in Orthodontics
- HANSEN, NILES M. JR., D.D.S. (Creighton University, 1957), Assistant Professor of Periodontics
- HAPAK, FRANCIS M., D.D.S. (Indiana University, 1951), Consultant in Orthodontics
- HEALEY, HARRY J., D.D.S. (Indiana University, 1931), Chairman, and Professor of Endodontics
- HEALEY, MAURICE J., D.D.S. (Indiana University, 1925), Assistant Professor of Basic Sciences
- HENNON, DAVID K., D.D.S. (Indiana University, 1960), Assistant Professor of Basic Sciences
- HERMAN, STANLEY C., D.D.S. (Indiana University, 1959), Assistant Professor of Pedodontics
- HERROLD, JON A., D.D.S. (Indiana University, 1956), Instructor in Oral Anatomy
- HINE, MAYNARD K., D.D.S. (University of Illinois, 1930), Dean of the School of Dentistry, and Chairman and Professor of Periodontics
- HIRSCHMAN, ROBERT B., D.D.S. (Indiana University, 1959), Instructor in Orthodonticso
- HOHLT, FREDERICK A., D.D.S. (Indiana University, 1934), Chairman of the Division of Clinical Operative Dentistry, and Associate Professor of Operative Dentistry
- HOPPER, SAMUEL H., Ph.D. (Massachusetts Institute of Technology, 1937), Chairman, and Professor of Public Health (School of Medicine)
- House, JAMES E., D.D.S. (University of Southern California, 1950), Acting Chairman, and Associate Professor of Prosthetics
- HUBBARD, DOROTHY D., Ph.D. (University of Maryland, 1953), Instructor in Basic Sciences
- HUBBARD, JESSE D., M.D. (Johns Hopkins University, 1951), Associate Professor of Pathology, (School of Medicine, Graduate School)
- HUGHES, FRANCIS W., Ph.D. (University of Wisconsin, 1954), Associate Professor of Pharmacology (School of Medicine)
- HUTTON, CHARLES E., D.D.S. (Indiana University, 1952), Associate Professor of Oral Surgery
- HUXOLL, GLORIA H. (Mrs.) R.D.H. (Indiana University, 1952), Instructor in Dental Hygiene
- JARVIS, RONALD H., D.D.S. (University of Buffalo, 1963), Graduate Assistant in Crown and Bridge

JINKS, JAMES C., D.D.S. (Indiana University, 1962), Instructor in Pedodontics

JOHNSON, DEAN, D.D.S. (University of Maryland, 1963), Graduate Assistant in Crown and Bridge

JOHNSON, PAUL C., Ph.D. (University of Michigan, 1956), Associate Professor of Physiology (School of Medicine)

JOHNSTON, JOHN F., D.D.S. (Indiana University, 1921), University Professor of Dentistry

JONES, LARRY D., D.D.S. (Indiana University, 1962), Instructor in Pedodontics

KASLE, MYRON J., D.D.S. (Indiana University, 1962), Instructor in Pedodontics

KELLER, MAURICE J., D.D.S. (Indiana University, 1956), Instructor in Pedodontics

- KELLER, WILLIAM P., D.D.S. (Indiana University, 1943), Instructor in Periodontics
- KELLEY, HUDSON G., D.D.S. (Indiana University, 1947), Assistant Professor of Orthodontics
- KERKHOVE, BERNARD C. JR., D.D.S. (Indiana University, 1962), Instructor in Pedodontics

KERR, HARRY R. JR., D.D.S. (Indiana University, 1954), Instructor in Oral Surgery

KIELY, GERALD G., D.D.S. (Indiana University, 1925), Assistant Professor of Oral Surgery

KIM, RAYMOND, D.D.S. (Indiana University, 1965), Graduate Assistant in Prosthetics

KING, PAUL E., D.D.S. (Indiana University, 1938), Assistant Professor of Operative Dentistry

- KLEIN, ARTHUR I., D.D.S. (University of Pennsylvania, 1947), Assistant Professor of Pedodontics
- KNOEBEL, LEON K., Ph.D. (University of Rochester, 1955), Associate Professor of Physiology (School of Medicine)

KOHLMANN, CARL R., D.D.S. (Indiana University, 1948), Instructor in Radiology

KREIT, LEONARD H., M.Ed. (Idaho State College, 1961), Consultant in Orthodontics

KUBA, RAMESH K., B.D.S. (Government Dental College and Hospital (India), 1962), Graduate Assistant in Radiology

LAHRMAN, DON E., D.D.S. (Indiana University, 1957), Lecturer in Dental Auxiliaries LANDAU, MACY J., D.D.S. (University of Michigan, 1961), Teaching Fellow in Pedodontics

LASWELL, HAROLD R., D.D.S. (Indiana University, 1961), Instructor in Operative Dentistry and Dental Materials

LEER, JERRY H., D.D.S. (Indiana University, 1958), Instructor in Operative Dentistry

LEW, PAUL I., D.D.S. (Indiana University, 1961), Instructor in Crown and Bridge and Partial Denture

LEYDA, WILLIAM D., D.D.S. (Indiana University, 1960), Instructor in Oral Surgery

LIMBERT, NICK, D.D.S. (Western Reserve University, 1963), Intern in Pedodontics

LIVINGSTON, WILSON A., D.D.S. (Indiana University, 1939), Instructor in Operative Dentistry

LLOYD, DONALD G., D.D.S. (Indiana University, 1957), Lecturer in Dental Auxiliaries LORD, MAURICE, D.D.S. (Indiana University, 1964), Instructor in Operative Dentistry MCCLURE, DAVID B., D.D.S. (Indiana University, 1953), Assistant Professor of Pedodontics

McCORMICK, FRANCIS E., D.D.S. (Indiana University, 1953), Instructor in Pedodontics McDonald, Ralph E., D.D.S. (Indiana University, 1944), Assistant Dean; Secretary of Graduate Dental Education; Chairman, and Professor of Pedodontics

MAESAKA, RAY K., D.D.S. (Indiana University, 1960), Instructor in Crown and Bridge and Partial Denture

MARTIN, PAUL W., D.D.S. (Indiana University, 1962), Instructor in Oral Diagnosis

MARTIN, RICHARD A., D.D.S. (Indiana University, 1965), Intern in Pedodontics

MATLOCK, JAMES F., D.D.S. (Indiana University, 1943), Assistant Professor of Radiology MERCER, VICTOR, D.D.S. (Indiana University, 1953), Instructor in Basic Sciences

MEYERS, ROBERT J., D.D.S. (Indiana University, 1928), Assistant Professor of Operative Dentistry

MICHELI, WILLIAM D., D.D.S. (Indiana University, 1943), Assistant Professor of Crown and Bridge and Partial Denture

MILLER, ARTHUR S., D.D.S. (Washington University, 1959), Instructor in Oral Pathology

- MILLER, DAVID L., D.D.S. (Indiana University, 1965), Graduate Assistant in Crown and Bridge
- MISSELHORN, RICHARD A., D.D.S. (Indiana University, 1937), Professor of Oral Diagnosis
- MITCHELL, DAVID F., D.D.S. (University of Illinois, 1942), Ph.D. (University of Rochester, 1948), Chairman, and Professor of Oral Diagnosis
- MOORE, WARD W., Ph.D. (University of Illinois, 1952), Associate Professor of Physiology (School of Medicine)
- MORGAN, DAVID L., D.D.S. (Indiana University, 1964), First-Year Resident in Pedodontics
- MORRIS, ESTELL E., D.D.S. (Indiana University, 1953), Assistant Professor of Oral Surgery
- MUHLER, JOSEPH C., D.D.S. Indiana University, 1948), Ph.D. (1952), Research Professor of Basic Sciences
- MULLANEY, THOMAS P., D.D.S. (Loyola University, 1961), Graduate Assistant in Endodontics
- MUMFORD, GEORGE, D.D. Sc. (University of Sydney (Australia), 1961), Assistant Professor of Crown and Bridge and Partial Denture
- MURPHY, ROBERT C., Ph.D. (University of Wisconsin, 1955), Associate Professor of Anatomy (School of Medicine)
- MUSSELMAN, ROBERT J., D.D.S. (Indiana University, 1964), First-Year Resident in Pedodontics
- NESLER, DON C., D.D.S. (Indiana University, 1960), Instructor in Periodontics
- NOEL, RICHARD W., A.M. (Indiana University, 1953), Lecturer in Dental Auxiliaries
- NOONAN, ROGER G., D.M.S. (University of Louisville, 1955), Assistant Professor of Pedodontics
- NORMAN, RICHARD D., D.D.S. (Indiana University, 1958), Assistant Professor of Dental Materials
- OCHS, SIDNEY, Ph.D. (University of Chicago, 1952), Professor of Physiology (School of Medicine)
- OLDHAM, DREW F., D.D.S. (Indiana University, 1963), Instructor in Crown and Bridge and Partial Denture
- OLDHAM, PAUL R., D.D.S. (Indiana University, 1927), Consultant in Crown and Bridge and Partial Denture
- OSBORNE, JOHN W., D.D.S. (Indiana University, 1963), Graduate Assistant in Operative Dentistry
- O'SHAUGHNESSY, PHILLIP E., D.D.S. (Indiana University, 1960), Instructor in Dental Hygiene, Consultant in Oral Diagnosis, and Assistant Director of the Auxiliary Programs on the Fort Wayne Regional Campus
- PAGE, JAMES, B.D.S. (Guys Hospital Dental School (England), 1963), Teaching Fellow in Pedodontics
- PATTERSON, SAMUEL S., D.D.S. (Indiana University, 1940), Associate Professor of Endodontics
- PHILLIPS, LLOYD J., D.D.S. (Indiana University, 1954), Instructor in Periodontics
- PHILLIPS, RALPH W., M.S. (Indiana University, 1955), Research Professor of Dental Materials
- PING, RONALD S., D.D.S. (Indiana University, 1941), Acting Chairman, and Associate Professor of Oral Surgery
- PLATT, JAMES R., D.D.S. (Indiana University, 1961), Lecturer in Dental Hygiene
- POLIZOTTO, SCOTT H., D.D.S. (Indiana University, 1964), Teaching Associate in Crown and Bridge
- PRICE, RAYMOND R., D.D.S. (Indiana University, 1951), Assistant Professor in Basic Sciences
- QUINN, GILBERT D., D.D.S. (Indiana University, 1933), Instructor in Periodontics
- RADIKE, ARTHUR W., D.D.S. (Ohio State University, 1947), Consultant in Preventive Dentistry
- RAIDT, HAROLD, M.S. (University of Kentucky, 1934), Professor of Microbiology (School of Medicine)
- REDISH, CHARLES H., D.D.S. (Indiana University, 1951), Assistant Professor of Oral Surgery
- REIBEL, PETER R., D.D.S. (Indiana University, 1960), Instructor in Prosthetics

- REITH, HARRY J., D.D.S. (Indiana University, 1965), Lecturer in Dental Auxiliaries
- REMLEY, BASIL W., D.D.S. (Indiana University, 1953), Instructor in Oral Surgery
- REYNOLDS, JAMES M., D.M.D. (University of Louisville, 1960), Instructor in Orthodontics
- RICHMOND, NORRIS L., D.D.S. (Indiana University, 1963), Instructor in Operative Dentistry
- RISCH, JOHN R., D.D.S. (Indiana University, 1951), Instructor in Prosthetics
- ROBERTS, J. KEITH, D.D.S. (Indiana University, 1962), Instructor in Pedodontics
- ROBERTS, ROBIN A., D.D.S. (Indiana University, 1963), Teaching Associate in Operative Dentistry
- ROCHE, JAMES R., D.D.S. (Indiana University, 1947), Assistant Professor of Pedodontics
- ROSENSTEIN, WILLIAM H., D.D.S. (Indiana University, 1963), Graduate Assistant in Orthodontics
- ROTHE, CARL F., Ph.D. (Ohio State University, 1955), Associate Professor of Physiology (School of Medicine)
- RUMBAUGH, IRMA B. (Mrs.) D.D.S. (Indiana University, 1954), Lecturer in Dental Auxiliaries
- SAGE, RUSSELL A., M.D. (Indiana University, 1928), Associate Professor of Otorhinolaryngology, and Lecturer in Dentistry (School of Medicine)
- SAGRAVES, GLEN O., D.D.S. (Indiana University, 1958), Director of the Clinic, and Assistant Professor of Oral Diagnosis
- SARNER, HARVEY, LL.B. (University of Minnesota, 1959), Lecturer in Jurisprudence
- SCHIMMELE, RALPH G., D.D.S. (Indiana University, 1952), Assistant Professor of Dental Hygiene, Consultant in Crown and Bridge and Partial Denture, and Director of Dental Auxiliaries on the Regional Campuses
- SCHMIDT, MARVIN G., D.D.S. (Indiana University, 1960), Instructor in Operative Dentistry
- SCHNELL, RICHARD J., D.D.S. (St. Louis University, 1946), Assistant Professor of Dental Materials
- SCHULZ, JOHN H., D.D.S. (Indiana University, 1959), Instructor in Operative Dentistry
- SCULL, JORDAN L., D.D.S. (Indiana University, 1955), Assistant Professor in Crown and Bridge and Partial Denture
- SEIB, RICHARD, D.D.S. (Indiana University, 1965), Intern in Pedodontics
- SELKURT, EWALD E., Ph.D. (University of Wisconsin, 1941), Chairman, and Professor of Physiology (School of Medicine)
- SHAFER, WILLIAM G., D.D.S. (Ohio State University, 1947), Chairman, and Professor of Oral Pathology
- SHELLHAMER, ROBERT H., Ph.D. (Ohio State University, 1952), Professor of Anatomy (School of Medicine)
- SHOEMAKER, WILLIAM R., D.D.S. (Indiana University, 1931), Instructor in Periodontics
- SHRIGLEY, EDWARD W., Ph.D. (University of Wisconsin, 1937), M.D. (1941), Chairman, and Professor of Microbiology (School of Medicine)
- SILAGI, JAN, D.D.S. (Indiana University, 1965), Graduate Assistant in Oral Pathology
- SIMPSON, GEORGE W., D.D.S. (Indiana University, 1944), Instructor in Crown and Bridge and Partial Denture
- SNYDER, SARA MITTEN, A.B. (Indiana University, 1959), Teaching Associate in Dentistry
- SOLOMON, REUBEN A., M.D. Indiana University, 1917), Clinical Professor of Medicine (School of Medicine)
- SPEAR, LEWIS B., D.D.S. (Indiana University, 1960), Instructor in Preventive Dentistry STANDISH, S. MILES, D.D.S. (Indiana University, 1945), Chairman, Division of Clinical
- Oral Pathology, and Associate Professor of Oral Pathology
- STARKEY, PAUL E., D.D.S. (Indiana University, 1943), Chairman of the Division of Clinical Pedodontics, and Professor of Pedodontics
- STETZEL, ROBERT M., D.D.S. (Indiana University, 1953), Lecturer in Dental Hygiene STOELTING, VERGIL K., M.D. (Indiana University, 1936), Chairman, and Professor of Anesthesiology (School of Medicine)
- STONER, MORRIS M., D.D.S. (Indiana University, 1942), Assistant Professor of Preventive Dentistry
- STOOKEY, GEORGE K., A.B. (Indiana University, 1957), M.S.D. (1962), Assistant Professor of Preventive Dentistry

- SUMMERS, WILLIAM A., Ph.D. Tulane University of Louisiana, 1940), Professor of Microbiology (School of Medicine)
- SWARTZ, MARJORIE L., M.S. (Indiana University, 1959), Associate Professor of Dental Materials
- SWENSON, HENRY M., D.D.S. (University of Illinois, 1942), Chairman, Division of Clinical Periodontics, and Professor of Periodontics
- TARPLEE, ROBERT E., D.D.S. (Indiana University, 1952), Assistant Professor of Oral Diagnosis
- TCHALIAN, VAROUJAN, D.D.S. (Ecole de Cherurgie Denteire eb de Stomatologie de Paris (France), 1955), D.D.S. (Indiana University, 1964), Instructor in Oral Rehabilitation
- THOMAS, NEAL M., M.S. (St. Francis College, 1964), Lecturer in Dental Auxiliaries
- THOMPSON, RICHARD V., D.D.S. (Indiana University, 1961), Instructor in Operative Dentistry
- TIFFANY, GEORGE, D.D.S. (Indiana University, 1965), Teaching Associate in Operative Dentistry
- TODD, JACKSON D., D.D.S. (Indiana University, 1955), Consultant in Oral Surgery
- TOTTEN, CARLA J. (Mrs.) R.D.H. (Indiana University, 1955), Instructor in Dental Hygiene
- TRAUBMAN, LIONEL, D.D.S. (University of California, 1964), Teaching Fellow in Pedodontics
- URBAN, DANIEL P., D.D.S. (Marquette University, 1957), Lecturer in Dental Auxiliaries
- VAN HUYSEN, GRANT, D.D.S. (University of Pennsylvania, 1925), Chairman, and Professor of Oral Anatomy
- VAN ROEKEL, NED, D.D.S. (Indiana University, 1965), Graduate Assistant in Crown and Bridge and Partial Denture
- WALDO, JEANE T., D.D.S. (Indiana University, 1925), M.D. (1934), Clinical Professor in Oral Surgery
- WALLS, ROBERT C., D.D.S. (Indiana University, 1959), Instructor in Crown and Bridge and Partial Denture
- WARNER, MARGARET M., M.P.A. (University of California, 1948), Lecturer in Dental Auxiliaries
- WATANAVICHARN, AROB, D.D.S. (Medical University (Thailand), 1960), Instructor in Crown and Bridge and Partial Denture
- WEBSTER, RICHARD C., Ph.D. (University of Kansas, 1949), Associate Professor of Anatomy (School of Medicine)
- WEINBERG, BERND, Ph.D. (Indiana University, 1965), Speech Pathologist and Instructor in Speech Pathology (School of Medicine), and Instructor in Oral Rehabilitation (School of Dentistry)
- WEINE, FRANKLIN, D.D.S. (University of Illinois, 1957), Graduate Assistant in Endodontics
- WEINRAUB, IRVIN I., D.D.S. (Indiana University, 1936), Lecturer in Dental Auxiliaries
- WHITE, JOE G., D.D.S. (Indiana University, 1946), Assistant Professor of Prosthetic Dentistry
- WITHAM, ROBERT J., D.D.S. (Indiana University, 1962), Instructor in Operative Dentistry

### Administrative Personnel, Nonacademic

BINKLEY, LYNN R., Chief Accountant

JACKSON, PAUL D., B.S.C.E., Superintendent of Buildings and Grounds

KATZENBERGER, GERTRUDE, Office Manager and Cashier, Main Clinic

MORRIS, HOWARD B., A.M., Assistant to the Director of Public Relations

NEEL, JAMES R., B.S., Purchasing Agent

SCOTT, RICHARD C., Division of Dental Art

TIRMENSTEIN, ROBERT M., B.S., Personnel Director

WALKER, MRS. MABEL, Dental Librarian

# FOR FURTHER INFORMATION

Requests for application forms or information on any of the programs in dental education should be directed to the appropriate address below:

#### Undergraduate Dentistry

Indiana University School of Dentistry 1121 West Michigan Street Indianapolis, Indiana 46202

The offices are open 9 a.m. to 5 p.m., Monday through Friday for those who desire to call or visit.

#### Dental Assistant and Dental Hygiene

Director of the Dental Auxiliary Programs Indiana University Fort Wayne Regional Campus 2101 East U.S. 30 By-Pass Fort Wayne, Indiana 46805

Director, Curriculum for Dental Hygiene Programs Indiana University School of Dentistry 1121 West Michigan Street Indianapolis, Indiana 46202

#### Graduate Dentistry

Dr. Ralph E. McDonald, Secretary Graduate Dental Program 1121 West Michigan Street Indianapolis, Indiana 46202

