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School of Dentistry



# ANNOUNCEMENTS, 1956-57 School of Dentistry

## INDIANA UNIVERSITY BULLETIN (OFFICIAL SERIES)

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Vol. LIV, No. 10

BLOOMINGTON, INDIANA

April 30, 1956

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1956-61

# Calendar, 1956-57

Indianapolis Campus

#### First Semester, 1956-57

September 17	. Monday	Registration (clinics closed)
September 18	. Tuesday	Classes begin
November 3	Saturday	Dental Alumni Day (classes will meet)
	.Wednesday, 12 m	Thanksgiving recess begins
		(clinics closed during recess)
November 26	Monday, 8 a.m	Thanksgiving recess ends
December 19	. Wednesday, 5 p.m	.Christmas recess begins
		(clinics closed during recess)
January 3	. Thursday, 8 a.m	Christmas recess ends
January 19	. Saturday	Final examinations begin
January 25	. Friday	First semester ends

#### Second Semester, 1956-57

February 4	.Monday Registration
	Thursday, 5 p.mSpring recess begins
	(clinics closed during recess)
April 24	Wednesday, 8 a.mSpring recess ends
May 29	Wednesday Examinations begin
June 4	.TuesdaySecond semester ends

#### **Bloomington** Campus

First Semester, 1956-57

September 10 Monday, 8 a.m
September 11, 12 Tuesday, Wednesday
September 12 Wednesday, 9 a.m
graduate)
September 13 Thursday Counseling continues
September 14, 15 Friday, SaturdayEnrollment
September 17 Monday, 7:30 a.mClasses begin
November 2
November 20Tuesday, 5:20 p.m
November 26
December 19
January 3 Thursday, 7:30 a.m Christmas recess ends
January 16
January 17 Thursday Reading day
January 18 Friday Examinations begin
January 25 Friday Examinations end

#### Second Semester, 1956-57

January 29	Tuesday	. New student meetings
	Wednesday, Thursday	
February 1, 2	Friday, Saturday	.Enrollment
February 4	Monday, 7:30 a.m	.Classes begin
	Friday, 5 p.m	
	Wednesday, 5:20 p.m	
April 25	Thursday, 7:30 a.m	Spring recess ends
	Wednesday	
	Friday, 5:20 p.m	
	Saturday	
	Monday	
	Thursday	
June 4	.Tuesday	. Examinations end
	.Monday	

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

# Bulletin of the School of Dentistry

Indiana University Bloomington, Indiana

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### LIBRARY Indiana University School of Dentistry Indianapolis, Indiana

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The Indiana University Medical Center at Indianapolis (School of Dentistry Building in foreground)

## Staff, 1955-56

#### OFFICERS OF THE SCHOOL OF DENTISTRY

#### HERMAN B WELLS, A.M., LL.D., President.

- WILLIAM LOWE BRYAN, Ph.D., LL.D., L.H.D., President Emeritus (died November 21, 1955).
- HERMAN THOMPSON BRISCOE, Ph.D., Vice-President, and Dean of the Faculties.

JOSEPH AMOS FRANKLIN, B.S., Vice-President, and Treasurer.

- JOHN WILLIAM ASHTON, Ph.D., LL.D., Vice-President, and Dean of Student and Educational Services.
- WENDELL WILLIAM WRIGHT, Ph.D., Vice-President, and Director of Ad-ministrative Studies and Institutional Relations.
- CHARLES EDWIN HARRELL, A.B., LL.B., Registrar, and Director of the Office of Records and Admissions.

MAYNARD KIPLINGER HINE, D.D.S., M.S., Dean of the School of Dentistry.

#### FACULTY OF THE SCHOOL OF DENTISTRY

\* The faculty of the School of Dentistry is arranged alphabetically in the different ranks.

#### FACULTY AT BLOOMINGTON

MAYNARD KIPLINGER HINE, Dean of the School of Dentistry, and Chairman and Professor of Periodontia. D.D.S., University of Illinois, 1930; M.S., 1932.

- HARRY GILBERT DAY, Chairman, and Professor of Chemistry. A.B., Cornell College, 1930; Sc.D., Johns Hopkins University, 1933.
- PAUL MONTGOMERY HARMON, Chairman, and Professor of Physiology. A.B., Indiana University, 1914; A.M., 1915; Ph.D., 1920.
- RICHARD LOCKWOOD WEBB, Chairman, and Professor of Anatomy. A.B., University of Illinois, 1924; M.S., 1925; Ph.D., 1931.
- RAYMOND GARBOLD MURRAY, Associate Professor of Anatomy. B.S., Monmouth College, 1937; Ph.D., University of Chicago, 1942.
- PAUL ANDREW NICOLL, Professor of Physiology; Chief of Party, Pakistan Contract.

A.B., Tarkio College, 1930; Ph.D., Washington University, 1936.

JOSEPH STANLEY RAFALKO, Associate Professor of Anatomy.

A.B., Villanova College, 1929; M.S., University of Pennsylvania, 1981; Ph.D., 1947.

(Mrs.) MARTHA THOMPSON STRONG, Assistant Professor of Anatomy.

B.S., Knox College, 1920; A.M., University of California, 1925; Ph.D., Indiana University, 1936.

CALVIN CLARENCE TURBES, Assistant Professor of Anatomy.

B.S., Iowa State College of Agriculture and Mechanic Arts, 1944; D.V.M., 1944; M.S., Ohio State University, 1949.

RICHARD CURTIS WEBSTER, Assistant Professor of Anatomy. A.B., University of Louisville, 1938; M.S., 1940; Ph.D., University of Kansas, 1949.

#### FACULTY AT INDIANAPOLIS

MAYNARD KIPLINGER HINE, Dean of the School of Dentistry, and Chairman and Professor of Periodontia.

D.D.S., University of Illinois, 1930; M.S., 1932.

JAMES WILLIAM ADAMS, Chairman, and Professor of Orthodontia.

B.S., Transylvania College, 1931; D.D.S., Ohio State University, 1936; M.S., University of Illinois, 1939.

DREXELL ALLEN BOYD, Chairman, and Professor of Operative Dentistry. D.D.S., Indiana University, 1934.

- FRANK FORRY, Professor of Pathology. A.B., DePauw University, 1910; M.D., Indiana University, 1923.
- JOHN FRANK HALL, Professor of Oral Surgery. D.D.S., University of Pittsburgh, 1934; B.S., 1935.

 HARRY JOSEPH HEALEY, Chairman of Division of Endodontia, and Professor of Operative Dentistry.
 A.B., Butler University, 1931; D.D.S., Indiana University, 1931.

- SAMUEL HERSEY HOPPER, Professor of Public Health. B.S., Massachusetts Institute of Technology, 1933; M.S., 1934; Ph.D., 1937.
- FRANK CARLYLE HUGHES, Superintendent of Clinics, and Chairman and Professor of Prosthetic Dentistry. D.D.S., Indiana Dental College, 1918.

HAROLD RAYMOND HULPIEU, Professor of Pharmacology.

A.B., Southwestern College, 1924; A.M., University of Oklahoma, 1924; Ph.D., Johns Hopkins University, 1928.

- JOHN FRANCIS JOHNSTON, Chairman, and Professor of Crown and Bridge. D.D.S., Indiana Dental College, 1921.
- EDWIN NICHOLAS KIME, Professor of Anatomy. A.B., Indiana University, 1914; M.D., 1916; M.D. cum laude, 1917.

DAVID FARRAR MITCHELL, Chairman, and Professor of Oral Diagnosis.

B.S., University of Illinois, 1940; D.D.S., 1942; Ph.D., University of Rochester, 1948.

ERT JAY ROGERS, Professor Emeritus of Crown and Bridge; Interim Professor of Crown and Bridge. D.D.S., Indiana Dental College, 1919.

EDWARD WHITE SHRIGLEY, Chairman, and Professor of Microbiology.

B.S., Iowa State College of Agriculture and Mechanic Arts, 1932; M.S., 1933; A.M., Harvard University, 1934; Ph.D., University of Wisconsin, 1937; M.D., 1941.

- EDWARD BYRON SMITH, Chairman, and Professor of Pathology. B.S., Indiana University, 1936; M.D., 1938.
- LEWIS BENSON SPEAR, Professor of Roentgenology. D.D.S., Indiana Dental College, 1917.
- GRANT VAN HUYSEN, Chairman, and Professor of Oral Histopathology. D.D.S., University of Pennsylvania, 1925.
- REUBEN ALBERT SOLOMON, Clinical Professor of Medicine. B.S., Indiana University, 1915; M.D., 1917; M.D. cum laude, 1918.

JEANE THAYER WALDO, Clinical Professor of Oral Surgery.

B.S., Franklin College of Indiana, 1922; D.D.S., Indiana University, 1925; B.S., 1932; M.D., 1934.

JACOB KOHN BERMAN, Associate Professor of Surgery. A.B., Indiana University, 1919; M.D., Jefferson Medical College, 1921.

- ROBERT HAYES DERRY, Associate Professor of Prosthetic Dentistry. D.D.S., Medical College of Virginia, 1940.
- ROLAND WAYNE DYKEMA, Associate Professor of Crown and Bridge. D.D.S., Indiana University, 1947.
- GEORGE THADDEUS GREGORY, Consultant in University Hospitals, and Associate Professor of Oral Surgery. D.D.S., Indiana University, 1928.
- RALPH EARL McDoNALD, Chairman, and Associate Professor of Pedodontia. B.S., Indiana University, 1942; D.D.S., 1944; M.S., 1951.

WILBUR CHAPMAN MOORMAN, Associate Professor of Oral Surgery.

D.D.S., Medical College of Virginia, 1943; M.S., Indiana University, 1950; LL.B., University of Chicago, 1955.

- JOSEPH CHARLES MUHLER, Associate Professor in Preclinic and Research. B.S., Indiana University, 1947; D.D.S., 1948; Ph.D., 1952.
- RALPH WILBUR PHILLIPS, Chairman, and Associate Professor of Dental Materials.

A.B., Indiana University, 1940; M.S., 1955.

WILLIAM ALLEN SUMMERS, Associate Professor of Microbiology.

A.B., University of Illinois, 1935; M.S., 1936; Ph.D., Tulane University of Louisiana, 1940.

EVERETT R. AMOS, Assistant Professor of Oral Diagnosis. A.B., St. John's College, 1929; D.D.S., Indiana University, 1950.

- AARON LOUIS ANDREWS, Director of the Curriculum in Health Education, and Assistant Professor of Health Education.
- B.S., University of Louisville, 1942; M.S., Indiana University, 1948; H.S.Dir., 1949.
- ROBERT PRESTON BOESINGER, Assistant Professor of Operative Dentistry. D.D.S., Indiana University, 1935.

CHARLES JUSTIN BURSTONE, Assistant Professor of Orthodontia. D.D.S., Washington University, 1950; M.S., Indiana University, 1955.

COSMO RAYMOND CASTALDI, Assistant Professor of Pedodontia. D.D.S., University of Toronto, 1944; M.S.D., Northwestern University, 1951.

WILLIAM CLARENCE CLARK, Assistant Professor of Biochemistry and Pharmacology.

Ph.B., St. Louis College of Pharmacy and Allied Sciences, 1921; Ph.G., 1924; Ph.C., 1930; B.S., University of Illinois, 1934; M.S., 1947; Ph.D., 1952.

- DONALD M. CUNNINGHAM, Assistant Professor of Crown and Bridge. D.D.S., Indiana University, 1952.
- FREDRICK AROLD HOHLT, Assistant Professor of Operative Dentistry. D.D.S., Indiana University, 1934.
- PAUL ERVIN KING, Assistant Professor of Operative Dentistry. D.D.S., Indiana University, 1938.
- ROBERT JOSEPH MEYERS, Assistant Professor of Operative Dentistry. D.D.S., Indiana University, 1928.
- RICHARD ARTHUR MISSELHORN, Assistant Professor of Dental Anatomy. A.B., Indiana University, 1929; D.D.S., 1937.
- SAMUEL PATTERSON, Assistant Professor of Operative Dentistry. D.D.S., Indiana University, 1940.
- RONALD STANLEY PING, Assistant Professor of Oral Surgery. D.D.S., Indiana University, 1941.

- HAROLD RAIDT, Assistant Professor of Microbiology. B.S., University of Kentucky, 1933; M.S., 1934.
- WILLIAM GENE SHAFER, Assistant Professor of Histopathology, and Consultant in Oral and Dental Pathology.

B.S., University of Toledo, 1947; D.D.S., Ohio State University, 1947; M.S., University of Rochester, 1949.

- HENRY MAURICE SWENSON, Assistant Professor of Periodontia. B.S., University of Illinois, 1941; D.D.S., 1942.
- JOE GORDON WHITE, Assistant Professor of Prosthetic Dentistry. D.D.S., Indiana University, 1946.
- MARTHA ANNE ACKERMAN, Instructor in Dental Hygiene. B.S., University of Michigan, 1951.

JOHN WALTER BACH, Instructor in Operative Dentistry.

A.B., North Dakota State Teachers College (Dickinson), 1941; D.D.S., Indiana University, 1949.

- ERVINE BYRD BARR, Instructor in Periodontia. D.D.S., Indiana University, 1947.
- THOMAS HAROLD BEAVERS, Instructor in Prosthetic Dentistry. D.D.S., Indiana University, 1944.
- ROBERT LEE BOGAN, Instructor in Crown and Bridge. B.S., Butler University, 1950; D.D.S., Indiana University, 1954.
- EMORY WALLACE BRYAN, Instructor in Pedodontia. D.D.S., Indiana University, 1940.
- ALLY NEVILLE BURKS, Instructor in Crown and Bridge. D.D.S., Indiana University, 1942.
- JACK DENT CARR, Instructor in Radiology. A.B., Butler University, 1937; D.D.S., Indiana University, 1939.
- EDITH DAVIS, Instructor in Periodontia. D.D.S., Indiana Dental College, 1912.
- JACK DAY DENISON, Instructor in Operative Dentistry. D.D.S., Indiana University, 1950.
- RICHARD HARVEY ERNSTING, Instructor in Crown and Bridge. D.D.S., Indiana University, 1952.
- THOMAS ESMON, Instructor in Operative Dentistry. A.B., Indiana University, 1942; D.D.S., 1944.
- A. REBEKAH FISK, Director of Dental Hygiene, and Instructor in Clinic. R.D.H., University of Pennsylvania, 1923; B.S., Butler University, 1955.
- ELIZABETH ALLISON GRAVES, Instructor in Pedodontia. D.D.S., Indiana University, 1948.
- RUHAMAH HANNAH, Instructor in Radiology. A.B., Hanover College, 1941.
- WALTER SCOTT HARGIS, Instructor in Crown and Bridge. D.D.S., Indiana University, 1951.
- EDGAR T. HAYNES, Instructor in Pedodontia. D.D.S., Indiana Dental College, 1915.
- FRANCIS WILLIAM HUGHES, Instructor in Biochemistry and Pharmacology. B.S., Temple University, 1949; M.S., 1951; Ph.D., University of Wisconsin, 1954.

#### INDIANA UNIVERSITY

- CHARLES EDWARD HUTTON, Instructor in Oral Surgery. D.D.S., Indiana University, 1952.
- RICHARD E. JENNINGS, Instructor in Pedodontia. D.D.S., Indiana University, 1945.
- WILLIAM PAUL KELLER, Instructor in Periodontia. A.B., Indiana University, 1941; D.D.S., 1943.
- HUDSON GAYLOR KELLEY, Instructor in Orthodontia. D.D.S., Indiana University, 1947.
- WALKER WARDER KEMPER, JR., Instructor in Crown and Bridge. B.S., Butler University, 1949; D.D.S., Indiana University, 1953.
- GERALD GREGORY KILEY, Instructor in Oral Surgery. D.D.S., Indiana University, 1925.
- CARL ROBERT KOHLMANN, Instructor in Operative Dentistry. D.D.S., Indiana University, 1948.
- WILLIAM IRVIN LAWRENCE, Instructor in Crown and Bridge. D.D.S., Indiana University, 1947.
- JAMES FITCH MATLOCK, Instructor in Radiology. D.D.S., Indiana University, 1943.
- WILLIAM DONALD MICHELI, Instructor in Crown and Bridge. D.D.S., Indiana University, 1943.
- RALPH CALVIN McDowell, Instructor in Prosthetic Dentistry. D.D.S., Indiana University, 1954.
- ESTELL EDWARD MORRIS, Instructor in Oral Surgery. A.B., Indiana University, 1949; D.D.S., 1953.
- HARRY ELMO MOTSINGER, Instructor in Periodontia. B.S., Indiana University, 1950; D.D.S., 1953.
- GILBERT DIETZ QUINN, Instructor in Periodontia. D.D.S., Indiana University, 1933.
- CHARLES H. REDISH, Instructor in Oral Surgery. D.D.S., Indiana University, 1951.
- JAMES RICHARD ROCHE, Instructor in Pedodontia. D.D.S., Indiana University, 1947.
- (Mrs.) PATRICIA PALLARDY ROSENSTIHL, Instructor in Dental Hygiene. R.D.H., Temple University, 1947.
- ROBERT CARL SHIREY, Instructor in Operative Dentistry. D.D.S., Indiana University, 1954.
- DONALD EDWARD SPEES, Instructor in Crown and Bridge. B.S., Butler University, 1950; D.D.S., Indiana University, 1954.
- WILLARD CONKLING STAMPER, Instructor in Pedodontia. D.D.S., Indiana University, 1937.
- SAMUEL MILES STANDISH, Instructor in Oral Histopathology. D.D.S., Indiana University, 1945.
- MARJORIE LOUISE SWARTZ, Instructor in Dental Materials. B.S., Butler University, 1946.
- ROBERT EUGENE TARPLEE, Instructor in Prosthetic Dentistry. D.D.S., Indiana University, 1952.

#### SCHOOL OF DENTISTRY

- ROBERT TRAVIS WILSON, Instructor in Crown and Bridge. B.S., Indiana University, 1950; D.D.S., 1953.
- ROBERT OSCAR YOHO, Instructor in Public Health. A.B., Indiana University, 1934; A.M., 1939.
- ROBERT DOUGLAS ARMSTRONG, Lecturer in Jurisprudence. A.B., Indiana University, 1915; A.M., University of Wisconsin, 1917; LL.B., George Washington University, 1924; LL.M., 1925.
- MARGARET DUNHAM, Lecturer in Nutrition (first semester, 1955-56). B.S., University of Alberta, 1938; M.S., Western Reserve University, 1949.
- LEON BERGER, Special Lecturer in Practice Management. D.D.S., Indiana University, 1928.
- RUSSELL ANTHES SAGE, Special Lecturer in Dentistry. B.S., Indiana University, 1926; M.D., 1928.
- ROLAND STUART YUNGHANS, Special Lecturer in Biochemistry (Dental Hygiene).

- MILES SHUMAKER BARTON, Consultant in Prosthetic Dentistry. B.S., Tarkio College, 1929; D.D.S., Indiana University, 1933.
- DONAL HELTON DRAPER, Consultant in Crown and Bridge. D.D.S., Indiana University, 1935.
- WILLIAM DUDLEY GAMBILL, Consultant in Oral Diagnosis. B.S., Indiana University, 1937; M.D., 1939.
- CHARLES WILLIS GISH, Consultant in Public Health Dentistry. D.D.S., Indiana University, 1949.
- ROLENZO ARLIS HANES, Consultant in Orthodontia. D.D.S., Indiana University, 1940.
- FRANCIS MICHAEL HAPAK, Consultant in Orthodontia. D.D.S., Indiana University, 1951; M.S., 1953.
- GERALD ALTON HIATT, Consultant in Crown and Bridge. D.D.S., Indiana Dental College, 1915.
- RICHARD HARTWELL HOWARD, Consultant in Pedodontia. D.D.S., Indiana University, 1940.
- CHARLES LEROY HOWELL, Consultant in Public Health Dentistry. D.D.S., Indiana University, 1946; M.P.H., Johns Hopkins University, 1948.
- CHARLES W. NEWMAN, Consultant in Oral Surgery. D.D.S., Indiana University, 1926; M.S., 1955.
- PAUL RANDALL OLDHAM, Consultant in Crown and Bridge. D.D.S., Indiana University, 1927.
- FOREST KENNETH PAUL, Consultant in Crown and Bridge. D.D.S., Indiana University, 1924.
- GEORGE MAXWELL POWELL, Consultant in Public Health Dentistry. A.B., DePauw University, 1921; D.D.S., Loyola University (Ill.), 1927.
- Roy DANKS SMILEY, Consultant in Public Health Dentistry. D.D S., Indiana Dental College, 1908.
- ARTHUR IRVING KLEIN, Research Assistant in Pedodontia. D.D.S., University of Pennsylvania, 1947.
- RAYMOND ROGER PRICE, Research Assistant in Preclinic and Research. B.S., Purdue University, 1942; D.D.S., Indiana University, 1951.

A.B., DePauw University, 1950; A.M., 1952.

- RICHARD SCHNELL, Research Assistant in Dental Materials. D.D.S., St. Louis University, 1946; A.B., Washington University, 1951.
- LEWIS DONALD BENJAMIN, Graduate Assistant in Operative Dentistry. B.S., Duquesne University, 1947; D.D.S., Indiana University, 1955.
- ROBERT ALLEN DAY, Graduate Assistant in Crown and Bridge. B.S., Indiana State Teachers College, 1950; D.D.S., Indiana University, 1955.
- FLOYD EUGENE HALE, Graduate Assistant in Prosthetic Dentistry. D.D.S., Indiana University, 1955.
- ROBERT JOSEPH JOHNSON, Graduate Assistant in Pedodontia. D.D.S., Indiana University, 1955.
- YOUNG OK LEE, Graduate Assistant in Crown and Bridge. B.D.S., Seoul National University (Korea), 1941.
- ESTHER RITA DAVILA NADAL, Graduate Assistant in Pedodontics (resigned January 31, 1956). D.D.S., University of Santo Domingo, 1951; D.D.S., Indiana University, 1955.
- LLOYD JAMES PHILLIPS, Graduate Assistant in Periodontia. B.S., Indiana University, 1950; D.D.S., 1954.
- WILLIAM HENRY RIFFLE, Graduate Assistant in Crown and Bridge. B.S., Indiana University, 1952; D.D.S., 1955.
- JORDAN LEE SCULL, Graduate Assistant in Crown and Bridge. B.S., Indiana University, 1952; D.D.S., 1955.
- JACKSON DEAN TODD, Graduate Assistant in Oral Surgery. A.B., Indiana University, 1951; D.D.S., 1955.

#### OFFICIAL ASSISTANTS

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

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

GERTRUDE KATZENBERGER, Office Manager, and Cashier, Main Clinic.

ARTHUR D. LAUTZENHEISER, B.S., Chief Accountant.

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

DON NICHOL, Instrument Clerk.

RICHARD CLIFTON SCOTT, Division of Dental Art.

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

MARC G. WAGGENER, Editor, News Bureau.

(Mrs.) MABEL WALKER, Dental Librarian.

# General Information

Location of the School. Indiana University School of Dentistry, located at 1121 West Michigan Street, Indianapolis, Indiana, is an integral part of Indiana University's Medical Center. Students gain their educational experience in the Dental School Building and many of the hospitals in the Medical Center. The curriculum for the freshman year in the School of Dentistry is presented in Bloomington, Indiana, along with the freshman year in Medical School.

For information on dental education, write to the Indiana University School of Dentistry, 1121 West Michigan Street, Indianapolis 2, Indiana. Information may be obtained at the main office in the School of Dentistry at any time between 9 a.m. and 5 p.m., Monday through Friday.

**Opportunities in Dentistry.** Study of modern social trends in the United States indicates that there will be an increased demand for dental service in the next generation. Young men and women who are ready to choose a vocation now should be advised to consider a career in dentistry, since dentistry has much to offer the individual who elects to study and practice it. The dentist has the satisfaction of knowing his services contribute to the health, comfort, and appearance of his patients, for dentistry has proved itself as an important health service. It is true dentists do not generally become wealthy, but they are reasonably assured of an adequate, dependable income, and a respected place in community life. Usually the dental practitioner may regulate his working hours, and in many ways he enjoys a greater independence than persons in most vocations.

The general practitioner of dentistry is trained to care for a variety of oral diseases, and he finds that each patient presents a different problem in diagnosis and treatment. Most dentists engage in general practice, but there are several recognized specialties in the field of dentistry. For example, the orthodontist is trained to prevent and correct malpositions of teeth, the periodontist to care for diseases of the soft tissues of the mouth, the pedidontist to care for the dental problems of children, the exodontist to extract teeth, the oral surgeon to care for the more complex surgical procedures required in the oral cavity, the endodontist to treat infected root canals of teeth, the prosthodontist to restore lost teeth, and the restorative dentist to replace parts of teeth lost by decay. In addition to these specialties, there is a need for dentists in Public Health, in the Dental Corps of the U.S. Army, Navy, and Air Force, in the Veterans Administration, in research, and in teaching.

To those young men and women who are interested in scientific courses, those who have an interest in developing exacting technical skills, and those who sincerely desire to serve in one of the health professions, dentistry has much to offer.

History and Description. Indiana Dental College was organized in 1879 by a group of members of the Indiana State Dental Association in accordance with an agreement with the Indiana General Assembly of that year, which had passed the first law governing the practice of dentistry in Indiana. It was the ninth dental school to be organized in America and it has successfully offered dental education for seventy-five years. Graduates are to be found practicing in practically all civilized countries and in every part of the United States. The School is coeducational.

On June 1, 1925, by act of the Indiana legislature, the College was purchased by the state and became Indiana University School of Dentistry. The Dental School Building, which is now well equipped, was built in 1934 and is located in the Medical Center on West Michigan Street in Indianapolis.

The Indiana University Medical Center consists of the School of Medicine, the School of Dentistry, the Training School for Nurses, the Robert W. Long Hospital, the James Whitcomb Riley Hospital for Children, the Kiwanis Wing, the Rotary Convalescent Home, the Laboratory Science Building, the Clinical Building, the William H. Coleman Hospital for Women, and a new Student Union and Food Service Building. Located adjacent to the Medical Center are General Hospital, Veterans Hospital, and the LaRue D. Carter Memorial Hospital. Such a situation is ideal for the study of dentistry. Students in the School of Dentistry are admitted to all of the University Hospitals for training and observation in hospital procedure.

The School is a member of the American Association of Dental Schools, and is governed by its rules and by those of the Council on Dental Education of the American Dental Association. The course in dentistry covers four academic years, leading to the degree Doctor of Dental Surgery. In 1955-56, the School of Dentistry had a total enrollment of 339.

Freshman Year at Bloomington. In March, 1940, it was decided by the Board of Trustees that instruction in the fundamental sciences should be given on the Bloomington campus for the freshman year of dentistry. The curriculum is on the 2-4 plan as outlined by the Council on Dental Education.

Because there is a close relationship between the School of Dentistry and the remainder of the University and because the practice of dentistry and the different branches of research connected with it are based upon practically the same fundamental sciences as the practice of medicine, it is deemed advisable to provide facilities for training in fundamental sciences in the regularly established departments of the University for that purpose. Gross anatomy, histology and embryology, physiology, oral anatomy, and biological chemistry are taught to the freshman dental students in the School of Medicine on the Bloomington campus.

**Clinics.** The facilities for clinical material at the Indiana University School of Dentistry are excellent. Patients are drawn from a population, including nearby towns connected with Indianapolis, of about 600,000 people.

The variety of cases that present themselves is almost unlimited. Every student in the Dental School has abundant opportunities offered to perfect his technique in placing gold, amalgam, resinous and silicate cement fillings, porcelain and gold inlays, crown and bridge work, partial and full dentures, root canal treatment and filling, radiographic technique, and to study the various pathological conditions that present themselves during the conduct of a dental practice. The clinic is open daily, and is constantly under the supervision of competent instructors.

Hospital patients are available for study in the Long Hospital and the Riley Hospital for Children to allow the student to study hospital procedures and care of patients in the various departments of the hospitals.

The Library of the School of Dentistry. The library of the School of Dentistry, now relocated in larger quarters in the west wing of the first floor of the Dental School Building, contains about 11,272 items of which more than 9,000 are bound volumes, embracing all the fields of dentistry and the essential fields in the allied sciences, including medicine. More than 263 periodicals covering these subjects are received currently. The library receives numerous gifts of books and periodicals from graduates and friends of the School. Many of the periodicals help to complete volumes for bind-The library is gradually accumulating a collection of rare ing. dental books, using as a nucleus the small collection owned by the School since the deanship of the first dean, Dr. Phineas G. C. Hunt. Regular membership is maintained in the American Library Association, and institutional memberships are maintained in the Medical Library Association and the Special Libraries Association. The library is open from 8 a.m. to 5 p.m., Monday through Friday. The staff, which consists of one full-time professional librarian, one library assistant, and one part-time student assistant, functions under the direction of the University Library on the Bloomington campus and a committee composed of six members of the faculty of the School of Dentistry.

To the Freshman Dental Students and the Predental Students on the Bloomington Campus. For the convenience of these students, an office is maintained on the Bloomington campus by Dean Maynard K. Hine, of the School of Dentistry. Students may consult Margaret Littell in the Dean's Office in the Medical Building, regarding technical details or ask her to arrange an appointment with Dean Hine.

Living Expenses at Bloomington. Room and meals in the Residence Halls, Bloomington campus, vary from \$295 to \$399.50 a semester. Rates for married students vary from \$25 a month for a trailer to \$90 a month for a one-bedroom furnished apartment, according to type; dormitory rooms without cooking privileges are \$25 a month, with meals optional at \$200 a semester. Co-operative housing is available to men and women at \$60, room only, a semester. Rooms in private residences may be obtained at an average price a semester of \$90 double to \$126 single. Meals are available at nearby restaurants, the Campus Club, or the University Cafeteria in the Union Building. Living Expenses at Indianapolis. Students will find living expenses comparatively reasonable in Indianapolis.

The average gross amount of money spent by dental students is largely regulated by the spending habits of the individual. A considerable percentage of students earn their board and lodging outside of school hours. This is desirable only when absolutely necessary, as the school work should be the first and greatest interest in the life of the student.

Fees. All predental students enrolled in the Junior Division or the College of Arts and Sciences, if they are legal residents of the state of Indiana, are charged a basic fee of \$6 a credit hour.

Predental students who are not legal residents of the state of Indiana and who are enrolled in the above Schools are charged a basic fee of \$16.50 a credit hour.

The average amount of work carried by predental students is fifteen credit hours a semester.

A student who withdraws may, within five days after withdrawal, upon presenting the proper withdrawal notice at the Cashier's Office, procure the following refund:

Withdrawal during first or second semester: 75 per cent refund if withdrawal occurs within thirty days of date fees are due; 50 per cent refund if withdrawal occurs within sixty days of date fees are due; 25 per cent refund if withdrawal occurs within ninety days of date fees are due.

Withdrawal during summer session: 75 per cent refund if withdrawal occurs within fifteen days of date fees are due; 50 per cent refund if withdrawal occurs within thirty days of date fees are due; 25 per cent refund if withdrawal occurs within forty-five days of date fees are due.

All students in the School of Dentistry are charged a matriculation fee of \$5 in the first year. Basic fees for resident students in the Indiana University School of Dentistry are \$200 a semester.

All students in the School of Dentistry who are not legal residents of the state of Indiana will be charged a basic fee of \$350 a semester.

An advance payment of \$25 on fees is required after a student has been accepted. These fees are not returnable except in instances where students are called to active military duty. The diploma fee, payable thirty days prior to graduation, is \$15. If a duplicate diploma is issued, a fee of \$5 will be charged.

No student will be admitted to class until fees are paid. No exceptions will be made and the student should come prepared to pay his fees.

In case a student is compelled to postpone his work or withdraw, the fees will be returnable in full if such action is taken within seven days after registration.

Breakage, damage, and loss of School property must be paid for by the student or students at fault. In case they are not known, it will be charged against the entire class or student body.

The School will not be responsible for the loss of any personal property belonging to any student, whether by theft, fire, or unknown cause; however, each student is provided with a steel locker. See page 32 for Dental Hygiene fees and expenses.

General Expenses. Books for the first year at Bloomington will cost approximately \$114. Books for the three years at Indianapolis will cost approximately as follows: sophomore year, \$102; junior year, \$90; senior year, \$55.

Instruments required for the education of a dental student are quite costly, but many of them can be used after graduation if the student exercises care. The approximate cost of the instruments is as follows: freshman year, \$115.20; sophomore year, \$590; junior year, \$235; senior year, \$60.

Health Service. The Indiana University Medical Center provides a student health service for students of the Schools of Medicine and Dentistry, the course for laboratory technicians, the Normal College of the American Gymnastic Union of Indiana University, and the Indiana University Division of Social Service. The service is designed to promote the general health of students by offering complete clinical and laboratory examinations, dispensary or infirmary care for minor illnesses, and limited hospital care for major illnesses or surgical procedures. The cost is included in the regular fee.

Honor Fraternity. The national dental honorary fraternity, Omicron Kappa Upsilon, is represented in this School by the Component Chapter of Theta Theta with Dr. John F. Johnston, president, Dr. Fredrick Hohlt, president-elect, Dr. Henry Swenson, vicepresident, and Dr. Donald Cunningham, secretary-treasurer. Membership in this fraternity is voted annually by the faculty members to 12 per cent of the graduating class, and the key, which is symbolic of the fraternity, is awarded to each newly-elected member. This election is based upon the merit of the individual student, and all nominations are made from those rating in the upper third of the class. The following members were elected to Omicron Kappa Upsilon in May, 1955: S. Wallace Bell, M. John Borkowski, W. Kelley Carr, Norman Glassman, Floyd E. Hale, Charles Mayo Infante, Delmar R. Miller, Joe E. Rinard, Donald H. Schwartz, William E. Stucker.

Fraternities. Four national Greek letter dental fraternities for undergraduates have chapters in this School. They are: Alpha Omega, Delta Sigma Delta, Psi Omega, and Xi Psi Phi. Some of these fraternities maintain their own fraternity houses, which offer room and board to their members. They are under the general control of an interfraternity council.

Student American Dental Association. Under the auspices of the American Dental Association and the faculty, there has been organized a chapter of student members of the American Dental Association, which is a fully recognized association to which all students in the School of Dentistry are eligible. In their meetings, this chapter considers problems incident to their coming graduate experiences based on the principles established for the guidance and government of the American Dental Association. All members of this group automatically become members of the American Dental Association upon graduation from this institution. Dr. Fredrick A. Hohlt is student adviser.

Alumni Association. Through the formation of the Indiana University School of Dentistry Alumni Association many privileges have been offered to the dentists practicing in Indiana. Each alumnus of the School automatically becomes a member of this Association. Dr. Douglas H. White was president in 1955-56 with Dr. Fredrick A. Hohlt as secretary.

Alumni Bulletin. The School of Dentistry has a semiannual publication called the *Alumni Bulletin*. The purpose of the *Bulletin* is to keep the alumni informed regarding the activities and progress of the School. The members of the Alumni Association receive the *Bulletin* without cost. Professor Ralph W. Phillips is the editor.

Student Loan. The School maintains a loan fund for students who would otherwise be unable to continue their dental education. The fund is available to students in the sophomore, junior, and senior years.

Omicron Kappa Upsilon Fund. The honorary dental fraternity offers a loan fund for fees for worthy senior students.

Lectures and Clinics. Members of the faculty are available for lectures and clinics before district and local dental societies and study clubs throughout the state.

# Requirements for Admission, Promotion, and Graduation

Application for Admission. It is desirable that candidates for the School of Dentistry make application before the last semester of the academic year preceding that in which they wish to enter. It is not necessary to complete the academic requirements before making application although all requirements must be completed before final acceptance can be given. Application blanks may be obtained from the Office of the School of Dentistry, 1121 West Michigan Street, Indianapolis 2, Indiana. Application blanks must be completely filled in and accompanied by a photograph and an official transcript from each college attended. An aptitude test is required and a personal interview with the Committee on Admissions is desirable and may be requested. Details concerning the aptitude test may be obtained from the Office of the Dean, or by writing to the American Dental Association, 222 East Superior Street, Chicago, Illinois. It should be emphasized that it is the responsibility of the student to take the aptitude test in ample time to allow the Committee on Admissions to include it in his record.

Requirements for Admission. All entrance credentials must be approved by the Committee on Admissions of the School of Dentistry. Applicants must present: (1) high school credentials which will satisfy requirements for admission to the Junior Division of Indiana University. Although no specific high school courses are required. except those in the usual college entrance courses, it is recommended that the prospective dental student elect economics, psychology, shop work (one unit), history, civics, or English in completing his college entrance requirements. (2) credentials of credit for at least sixty semester hours or at least ninety quarter hours of approved predental collegiate work. The college course must include at least two semesters of credit in English (minimum six hours), two semesters of biology or zoology, two semesters of general physics, two semesters of general chemistry, and a semester's credit in organic chemistry. All science courses must include both class and laboratory instruction. (3) Credit points to equal at least the number of hours of credit (a C average). Other factors being equal, preferential consideration will be given to applicants who are residents of Indiana.

Suggested Predental Course. The predental collegiate training may be taken at any accredited college or university. Details of courses offered in the various accredited colleges may vary, so the college 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, but might give hours of credit different from those indicated in the course as outlined by Indiana University and printed below. Students should submit their proposed program to the Recorder of the Dental School and have it approved early in their predental course to be certain

#### INDIANA UNIVERSITY

that their program is adequate. Following is the outline of the program for predental courses as it is now recommended at Indiana University on the Bloomington campus.

#### FIRST YEAR

H	ours	Hours
English W101 Zoology Z103 Chemistry C105 *Mathematics M120 Military Training Physical Education	5 Zoology Z215 5 †Mathematics M130 3 Chemistry C106 . 1 Elective	$\begin{array}{c} \textcircled{\begin{tabular}{c} & & & & \\ & & & & & \\ & & & & & \\ & & & & & \\ & & & & & & \\ & & & & & & \\ & & & & & & \\ & & & & & & \\ & & & & & & \\ \end{array} $

#### SECOND YEAR

English W103 Chemistry C341 Physics P201 Electives Military Training	5 5 3	Physics P202 Electives Military Training	10
	16		

A minimum of sixty hours' academic work, plus two hours' physical education and four hours' military science, is required.

Students who have taken their predental work in other schools and desire to enter Indiana University School of Dentistry will be required to have their work evaluated to determine whether or not it has met the standards of admission.

The following courses are recommended as desirable electives:

(1) To take during first two years: Psychology P101, P111-P112 I-II; Greek and Latin Elements in Medical Terminology (Classics C209); courses from Groups IV A and IV B listed under combined degrees (below); Public Speaking I-II (Speech S121-S122); General and Individual Hygiene (Physiology P304).

(2) To take after completion of two years: Foreign Language, two semesters; General and Human Heredity (Zoology Z364); American Literature I-II-III (English L353-L354-L355).

**Dental Course.** Students are enrolled each September for the dental course which consists of eight separate semesters of sixteen weeks each. The first two semesters are given in Bloomington and the last six semesters in the Medical Center in Indianapolis. Details of the dental course are given in another section of this *Bulletin*. The degree conferred is Doctor of Dental Surgery.

Combined Academic and Dental Degrees. The faculties of the College of Arts and Sciences and of the School of Dentistry have approved a seven-year course in arts and dentistry leading to the degrees Bachelor of Science and Doctor of Dental Surgery. The

<sup>\*</sup> Mathematics M120 is prerequisite to Chemistry C105 or may be taken concurrently. Students who have had one year of high school algebra take M110; those with one and a half years of high school algebra take M120; those with two years of high school algebra should not take algebra in college.

<sup>&</sup>lt;sup>†</sup> Mathematics M180 or high school trigonometry is prerequisite to Physics P201. Students who have had trigonometry in high school should not repeat it in college.

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following curriculum has been approved for those students who wish to obtain the B.S. degree and who will enter the School of Dentistry after six semesters (ninety-two semester hours) in the College of Arts and Sciences.

#### COMBINED DEGREE PROGRAM LEADING TO DEGREE B.S. IN DENTISTRY

#### FIRST YEAR

H	lours	1	Hours
English W101 Zoology Z103 Chemistry C105 *Mathematics M120 Military Training Physical Education	5 5 3 1	‡English W102         Zoology Z215         †Mathematics M130         Chemistry C106         Military Training         Physical Education	5 2 5 1
	17		16

#### SECOND YEAR

Military Training 1 16 Electives	‡English W103 Chemistry C341 Physics P201 ‡Group IV A Military Training	553		3 3 2 2
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#### THIRD YEAR

‡Foreign Language ‡Group IV B Electives	3	‡Foreign Language ‡Group IV B Electives	3
	15		15

#### FOURTH YEAR

#### Dentistry

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.

The faculty of the College of Arts and Sciences has also approved a curriculum which shall include the foreign language and Group IV requirements leading to the A.B. degree, for students entering the School of Dentistry. This will ordinarily require that the student start his foreign language studies in the first semester of his sophomore year, postponing his Group IV A and IV B requirements until his junior year.

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<sup>\*</sup> See (\*) footnote on preceding page.

<sup>†</sup> See (†) footnote on preceding page.

<sup>‡</sup> These courses are specifically required for the degree B.S. in Dentistry.

The courses of Group IV A are the following: Anthropology: A103-A104, A303-A304 Economics: E201-E202, E300 Geography: G203, G313 Government: G103-G104 History: H103-H104, H105-H106, H308-H309, H305-H306-H307 Sociology: S161, S162, S163 or S301

The courses of Group IV B are the following:

The Arts: Fine Arts H100, Music M174, and Speech S240 Classics: C206-C207 English: L101-L102

Fine Arts: Courses in history of art

French: Any third- or fourth-year course of a literary character German: Any third- or fourth-year course of a literary character Greek: Any literary course beyond the first ten hours of college work or its equivalent

Italian: Any third- or fourth-year course of a literary character

Latin: Any literary course beyond the first ten hours of college work or its equivalent

Music: Courses in history and appreciation of music Philosophy: Six hours from the total departmental offering, but must include P100, P200, P240, or P250

Polish: P401-P402

Russian: R305-R306, R354-R355, R365

Spanish: Any third- or fourth-year course of a literary character

Admission to Advanced Standing. The student who desires admission to advanced standing in the School of Dentistry must present credentials showing that he has completed beginning studies in a school which has at least comparable preliminary requirements and maintains a similar curriculum. Examinations in all subjects may be required of applicants for advanced standing. Students thus admitted must spend at least two semesters (the senior year) at Indiana University School of Dentistry in order to be eligible for a degree. Please write the Dean of the School of Dentistry, 1121 West Michigan Street, Indianapolis 2, Indiana, for further information.

Rules for Attendance and Promotion. 1. In any course the minimum attendance for which credit will be given, or which will admit a student to final examination, is 85 per cent of the time scheduled for instruction in that course. The margin of 15 per cent absence is provided to accommodate only unavoidable absence due to illness, death of relatives, delayed registration, or other causes, and it is not contemplated that this concession shall apply other than to exceptional cases.

2. 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 have the sanction of the Dean and the instructor in charge of the course.

3. Instruction in all courses will begin as scheduled. No student who has not completed his registration within one day after the last stated day for registration may obtain credit for the year's work.

4. A student's grade of scholarship in each of his courses is 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), and F (failure). The term Incomplete will be limited to satisfactory work which is not complete. This term will not be used to signify work of inferior quality.

5. A failure (F) requires repetition of the course or additional work approved by the Dean.

6. Any student who fails to report for examination or fails to perform any part of the required work in any course will receive an Incomplete.

7. Failure to remove an Incomplete grade within six months (except in clinical courses), to the entire satisfaction of the instructor in charge and of the Dean, will constitute a failure. (See general rules below.)

8. A student who has Incompletes or failures, or both, in courses amounting to more than 30 per cent of the scheduled hours for the semester may be dropped from his class.

9. No student will be promoted in good standing unless he has to his credit an equal number of hours and credit points.

10. The dental faculty reserves the right to terminate the connection of any student with the School at any time for improper conduct, gross immorality, or lack of sufficient progress in the work, and under such circumstances no fees will be returned.

Incomplete Grades.\* The grade of Incomplete may be given only where the completed portion of a student's work in the course is of passing quality. A student must remove an Incomplete within two semesters of subsequent residence in the University. For purposes of these regulations, the period between the end of one regular academic year and the beginning of the succeeding academic year shall be considered the equivalent of a regular semester, if the student is enrolled during this period. If the student fails to remove the Incomplete grade during this period, the Incomplete will be changed to F.

A student may not enroll in a course in which he has a grade of Incomplete.

The student may be denied the right to make up an Incomplete if it seems to the dean and the instructor that it is impractical for the student to complete the course. In this event, the student should be given the opportunity to withdraw from the course.

Where the grade of Incomplete is given because the student missed the final examination, he shall be allowed to remove the Incomplete by taking the examination only if he has followed the regular procedure to have his absence excused and the Com-

<sup>\*</sup> None of these regulations apply to those graduate courses in which completion of the work of the course is not usually required at the end of the semester. Once a student has graduated, nothing in these regulations shall prohibit the Incomplete from remaining on the record.

mittee on Absence has notified the instructor that the student may be permitted to take the examination. If the Committee on Absence, under the Dean of Students, determines that the reason for the student's absence is not satisfactory, they should inform the instructor that the grade of Incomplete should be changed to a grade of F.

If the student has not removed the Incomplete within two semesters of residence, the dean of the school in which he is currently enrolled shall authorize the Office of Records and Admissions to change the Incomplete to F. Both the student and the instructor in whose course the student received the Incomplete shall be notified of this change in grade.

A grade of Incomplete may be removed in one of the following ways: (1) The student may complete the course within the time limit and the instructor may then send the appropriate Removal of Incomplete Card to the Office of Records and Admissions. (2) The dean of the student's school may authorize change of the Incomplete to W. Note: Where the Incomplete was received because of absence from the final examination, students may prefer to receive a grade of W instead of taking the examination. In such cases, the dean will not approve the grade of W unless the Committee on Absence has approved the reason for absence.

Withdrawals, approved by the dean of the Withdrawals. student's school, during the first four weeks of a full-length semester and during the first two weeks of a summer session, are arbitrarily marked W. Withdrawals, approved by the dean of the student's school, after the first four weeks of a regular semester and after two weeks of a summer session, 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. After four weeks in the regular semester and after two weeks in the summer session, the student shall be required to show adequate reasons for withdrawal to the dean of his school. In those cases where students discontinue attendance without officially withdrawing, the instructor shall report the grade of WF. Where nonattendance occurs late in the semester, however, a grade of Incomplete may be used if the instructor has reason to believe the cause of absence was beyond the control of the student.

Summer Sessions. The dental clinics will be open during most of the summer months to allow Indiana University students to obtain added clinical instruction and experience. Attendance is not required.

Graduation. Candidates for the degree Doctor of Dental Surgery must possess good moral character, must have been students of good deportment while in school, and must have completed all of the required work of the curriculum to the satisfaction of the faculty.

# Courses in the School of Dentistry, 1956-57

\*In the following course statements 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. These courses are subject to change without notice.

#### Anatomy

Anatomy A511-A512. Human Anatomy I-II. (6-6 cr.) Mr. WEBB and Staff. A lecture and laboratory course dealing with gross anatomical features of the human body, with special emphasis on the head and neck.

D501-D502. Anatomy, Oral: Freshman I-II. (3-3 cr.) Dr. MISSELHORN and Staff.

Morphological study of the teeth, their arrangement and occlusion.

Anatomy A513. Histology. (5 cr.) Mr. RAFALKO. Study of the histogenesis and minute structure of human tissues and organs, and the morphologic evidence of their function.

D603. Histology and Embryology, Oral: Sophomore. (2 cr.) Drs. VAN HUYSEN, SCHNELL.

Microscopical study of oral tissues and their development, including lecture and laboratory work. Slides, radiographs, and fresh tissues from the dental clinic will be used to correlate structure and function.

D807. Anatomy, Applied: Senior. (1 cr.)

Drs. KIME, VAN HUYSEN.

A comprehensive review of the head and neck, with a liberal use of prepared specimens and other aids. Lectures stress the relationship of anatomical structures to clinical procedure.

#### Biochemistry

Chemistry C580. Dental Biological Chemistry: Freshman. (5 cr.) Mr. DAY, Dr. MUHLER.

Lectures, recitations, and laboratory. Chemical nature of major tissue constituents, intermediary metabolism and the chemical regulation of body functions. Principles of nutrition, and emphasis on the biochemistry of the teeth. The laboratory work demonstrates metabolic patterns and chemical methods of examining biological materials.

#### Crown and Bridge

#### D505. Introduction to Dental Technics: Freshman. (2 cr.) Drs. JOHNSTON, CUNNINGHAM, HARGIS.

The dental student will be introduced by lectures and laboratory exercises to basic materials and technics used in dentistry.

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#### D604. Crown and Bridge: Sophomore. (4 cr.) Drs. JOHNSTON, DYKEMA, BURKS, and Staff.

Lecture and laboratory course covering the fundamentals, indications, contraindications, and construction of the full veneer and partial veneer crowns, the inlay as a retainer, the use of the pinledge, the soldered joint and sub-occlusal rest, the indications and contraindications for fixed bridges.

#### D651-D652. Partial Denture Section I-II. (4-2 cr.) Drs. JOHNSTON, CUNNINGHAM, and Staff.

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

#### D701-D702. Crown and Bridge: Junior I-II. (3-3<sup>1</sup>/<sub>2</sub> cr.)

Drs. JOHNSTON, DYKEMA, ERNSTING, KEMPER, and Staff.

This course includes lectures, laboratory studies, and clinical practice on diagnosis, pontic design and construction; indications and construction of porcelain and acrylic veneers, the plastic-faced gold crown, and the anterior-MacBoyle retainer; a con-sideration of bite opening, use of hydrocolloid technique, and the construction of bridges and partial veneer crowns.

## D791-D792. Partial Denture: Junior I-II. (11/2-1 cr.)

Drs. JOHNSTON, DAY, CUNNINGHAM.

This course consists of plans for mouth preparation and designs for removable partial dentures, a survey of clinical models, splinting, equilibration through grinding and restorative procedure.

# D801-D802. Crown and Bridge: Senior I-II. (4-3 cr.) Drs. JOHNSTON, DYKEMA, and Staff.

Lecture, laboratory, and clinical practice on the upper molar and lower bicuspid partial veneer crown, the hydrocolloid technique, fundamentals of occlusal reconstruction and restoration of vertical diversion.

#### Dental Materials

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

Mr. PHILLIPS, Miss SWARTZ.

Discussion and demonstration of the physical and chemical properties of materials used in dentistry, and the effect of manipulation upon these properties. Clinical applications are stressed.

#### Microbiology

## [650. Microbiology: Sophomore. (4 cr.)

Dr. SHRIGLEY, Mr. SUMMERS, and Staff. An introduction to the study of the infectious diseases with emphasis on the nature of the agents responsible and the reaction of the body to them. Two hours of lectures and four hours of laboratory.

#### Nutrition and Public Health

D503. Dental Seminar: Freshman. (1 cr.) Dr. MUHLER. A series of lectures and discussions on various aspects of dentistry will be presented. This series is designed to aid in the orientation of the freshman dental students.

#### SCHOOL OF DENTISTRY

#### D707. Civil Defense—Emergency Medical Care: Junior. (1 cr.) Dr. MITCHELL and Guest Lecturers.

This course presents an introduction to radiation physics, bomb types, radiation detectors, radioisotopes, decontamination, and conduct during possible attack. Chemical and biological warfare are considered, and casualty care is emphasized in relation to shock, burns, soft tissue trauma, and fractures. To be offered every other year.

#### D710. Nutrition: Junior. (1 cr.)

The fundamentals of nutrition and metabolism, as well as biological analysis for normal metabolic constituents are discussed. The importance of an adequate protein, fat, vitamin, mineral, and endocrine level in the organism is discussed in relation to a normal function of the body as a whole, and the teeth and supporting structures in particular.

D806. Public Health: Senior. (1 cr.) Drs. HOWELL, SMILEY. Lectures and discussion of problems relating to public health as applied to dentistry; how health problems are integrated with local communities; state and national programs.

D813. Preventive Dentistry: Senior. (1 cr.) Dr. MUHLER. A series of lectures is presented wherein the chemical composition of the teeth is discussed and the known preventive measures evaluated. Methods of diagnosis, classification of caries activity status, reasons for natural immunity, the effects of carbohydrates, and the dynamics of the teeth are discussed.

#### D817. Civil Defense—Emergency Medical Care: Senior. (1 cr.) Dr. MITCHELL and Guest Lecturers.

This course presents an introduction to radiation physics, bomb types, radiation detectors, radioisotopes, decontamination, and conduct during possible attack. Chemical and biological warfare are considered, and casualty care is emphasized in relation to shock, burns, soft tissue trauma, and fractures. To be offered every other year.

#### **Operative** Dentistry

#### D621-D622. Operative Dentistry: Sophomore I-II. (4-3 cr.) Drs. Boyd, Hohlt.

Fundamental principles and technical procedures of operative dentistry, including classification and selection of instruments, cavity preparations, physical properties, and manipulation of filling materials and root canal technique are presented in this course, which prepares the student for clinical practice in the junior year.

#### D721-D722. Operative Dentistry: Junior I-II. (4-3 cr.) Drs. Boyd, Healey, Hohlt, and Staff.

Clinical applications of operative procedures taught in the sophomore year are made in this course, supplemented by discussions and demonstrations of operating positions at the dental chair, use of separating devices, and control of pain. All clinical procedures are carried out by students under direct supervision.

#### D810. Advanced Operative Technique: Senior. (1/2 cr.) Dr. Boyd.

Special instruction will be given in this course on gold foil restorations, autoresins, the indirect inlay techniques, and the airbrasive technique.

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

#### Drs. HEALEY, PATTERSON, and Staff.

Clinical applications are made in this course of the principles of endodontics as taught in the preclinic years. Emphasis is placed on correct selection of cases, effective treatment procedures, and the restoration of the pulpless tooth following endodontic treatment.

Dr. MUHLER.

#### D821-D822. Operative Dentistry: Senior I-II. (4-3 cr.) Drs. Boyd, Healey, Hohlt, and Staff.

Seminars and lectures are continued through the first semester with clinical practice through the entire year. Oral examination, diagnosis, treatment planning, and studies of erosion, hypoplasia, and dental anomalies receive special attention. The practice of root canal therapy, covering all phases of pulpal involvements, is stressed.

#### Oral Diagnosis

#### D711-D712. Oral Diagnosis: Junior I-II. (11/2-11/2 cr.) Drs. MITCHELL, ROGERS, AMOS.

Students are given lectures and clinical practice in oral examination, history taking, and co-ordination of symptomatology. Emphasis is placed upon interpretation of radiographs, and detecting etiologic factors, both systemic and local, of oral disorders. Clinical teaching is supplemented by already prepared case histories with color photographs.

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

Drs. MITCHELL, ROGERS, AMOS.

A continuation of the diagnosis course given in the junior year (D711-D712). The senior student is scheduled for clinical practice only and thereby has an opportunity to see and study at first hand the various kinds of oral diseases present in the many patients who appear for treatment.

#### Oral Surgery

## D704. General Anesthesia in Oral Surgery: Junior. (1 cr.)

Dr. HALL.

General anesthetics for ambulatory and hospitalized patients are considered. Particular attention is given to nitrous oxide, oxygen, vinethene, ethyl chloride, and pentothal sodium. During the second semester, small groups are assigned to surgery, for demonstrations or anesthetization of patients, and surgical technic for patients under general anesthesia is demonstrated.

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

Drs. GREGORY, PING, and Staff. Lecture course covering local anesthesiology, surgical anatomy, basic principles of diagnosis, routine and surgical removal of teeth, infections of the face, neck, and mouth, diseases of the oral cavity, and adjacent tissues. Clinical demonstrations and supervision of operations of routine and minor oral surgery cases are included in this course.

D706. Principles of Surgery: Junior. (1 cr.) Dr. BERMAN. This course is designed to inculcate in the student an appreciation of the fundamental principles of surgery as applied to the mouth. Emphasis is placed upon surgical pathology and surgical physiology rather than technique.

## D831-D832. Oral Surgery: Senior I-II. (11/2-11/2 cr.)

Drs. GREGORY, PING, and Guest Lecturers.

The course includes lectures, seminars, clinical practice, and demonstrations of diagnosis, treatment planning, and surgical treatment of oral disorders, including tumors, impacted teeth, alveolar abscesses, deformities, harelip and cleft palate, and fractures of the jaws.

#### Orthodontia

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

Lectures and demonstrations one hour each week introduce the student to problems associated with diagnosis of dental and facial anomalies. The normal pattern of the face and the fundamental principles of normal occlusion are emphasized; special attention is given to the growth and development of the face and dental mechanism.

D741-D742. Orthodontia: Junior I-II.  $(1-1\frac{1}{2} \text{ cr.})$  Dr. Kelley.

The lecture each week is devoted to the analysis of dental and facial anomalies and the study of diagnostic methods and classifications. In the lecture and laboratory period of the second semester, the student learns treatment procedures and performs technical exercises used in the prevention and correction of malocclusions.

D803. Orthodontia: Senior.  $(\frac{1}{2}$  cr.) Dr. ADAMS and Staff. The student attends orthodontic clinics and employs the principles and techniques previously taught in conjunction with pedodontia.

#### Pathology

C650. General Pathology: Sophomore. (4 cr.) Drs. SMITH, SHAFER. In the study of the principles of disease production in the human body, gross specimens and histologic analyses are used as the means of teaching the common ways in which the living tissues and organs of the body respond to various injurious agents.

D608. Pathology, Oral: Sophomore. (3 cr.)

Drs. SHAFER, STANDISH. Detailed studies of developmental abnormalities and acquired disorders of the teeth and surrounding structures are made in this course. Illustrated lectures and a laboratory course are designed to teach the student the microscopic and clinical picture of oral lesions. Close association is maintained between this and the clinical departments.

D815. Oral Surgical Pathology Conference: Senior. (1 cr.)

Dr. SHAFER.

A conference in which interesting clinical cases are studied grossly, radiographically, and histologically. Through informal discussion, a diagnosis is established and the proper method of treatment outlined.

#### Pedodontia

D708. Pedodontia: Junior. (1 cr.) Dr. McDoNALD. In this lecture course the general subjects discussed are those of child management; growth, development, and morphology of the deciduous dention; restorative and preventive procedure for children.

D709. Advanced Pedodontia: Junior.  $(\frac{1}{2} \text{ cr.})$ 

Drs. McDonald, Castaldi.

A laboratory course designed to acquaint the student with current advanced technical procedures in the field of pedodontics.

## D841-D842. Pedodontia: Senior I-II. (2-1 cr.)

Drs. McDonald, Castaldi, and Staff.

Restorative and preventive procedures for children are performed in the clinic and correlated with the material presented in the lecture course. Clinical assignments are designed to acquaint the student with a variety of problems in the practice of dentistry for children.

#### INDIANA UNIVERSITY

#### Periodontia

D605. Oral Hygiene: Sophomore.  $(\frac{1}{2} \text{ cr.})$  Dr. HINE. The importance of oral health and methods of its preservation are discussed.

#### D751-D752. Periodontia: Junior I-II. (1½-½ cr.) Drs. HINE, SWENSON, MOTSINGER, and Staff.

This course includes a study of the periodontal diseases confronting the general practitioner: their etiology, symptomatology, and accepted methods of treatments.

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

Drs. HINE, SWENSON, MOTSINGER, and Staff. A review of principles taught in preceding years, with emphasis upon instrumentation and clinical procedures. Most subject material is provided by clinical cases.

#### Pharmacology and Therapeutics

#### B650. Pharmacology: Sophomore. (2 cr.)

Mr. HULPIEU, Mr. CLARK, Mr. HUGHES. A study of the effect of drugs on body function. A discussion of the mechanism by which drugs produce their effects, illustrated by laboratory observation of the action of representative drugs upon living organisms.

D705. Dental Therapeutics: Junior. (1 cr.) Dr. PING. A lecture and quiz course designed to produce competency in prescription writing, use of drugs in a rational therapeutic manner and supported by pharmacotherapeutics, toxicology, posology, and materia dentica.

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

Dr. SOLOMON.

A discussion of the more important systemic diseases and of the drugs used in their treatment.

#### Physiology

### Physiology P510. Human Physiology: Freshman. (8 cr.)

Mr. ROSTORFER.

The course includes a study of muscle, nervous systems, body fluids, circulation, respiration, digestion, metabolism, excretion, endocrines, sense organs, and body systems.

#### Practice Management

D504. History of Dentistry: Freshman. (1 cr.) Dr. JOHNSTON. Lectures include consideration of dentistry in prehistoric, ancient, mediaeval, and modern periods with discussions of the development of modern phases of practice. Development of dental education is traced, and the dental code of ethics explained.

D804. Jurisprudence: Senior. (1 cr.) Mr. ARMSTRONG. Lectures and study of cases on elementary law, with special reference to contracts and torts as applied to dental practice, and on the professional relation, its duties and liabilities, malpractice, and statutes governing dental practice.

#### D805. Practice Management: Senior. (1 cr.)

Dr. BERGER and Guest Lecturers. Discussions are presented of office management, patient relations, professional co-operation, collections, insurance, investments, and taxes.

#### SCHOOL OF DENTISTRY

#### Prosthetic Dentistry

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

Dr. DERRY.

Clinical Staff.

Lectures and laboratory exercises in the basic techniques relative to prosthetic dentistry. Assignments are designed to utilize the student's time to the greatest advantage in preparing him to solve the clinical problems which he will encounter in his junior and senior years.

#### D761-D762. Prosthetic Dentistry: Junior I-II. (2-2 cr.) Drs. Hughes, Derry, White, and Staff.

Lectures, seminars, reading assignments, and clinical practice in the various problems encountered in prosthetic procedures. Special consideration is given to diagnosis and treatment planning and their influence on prosthetic procedures. Students are first given comparatively simple clinic assignments proceeding with the more difficult problems as they gain experience.

#### D861-D862. Prosthetic Dentistry: Senior I-II. (2-4 cr.) Drs. Hughes, Derry, White, and Staff.

Demonstrations, lectures, seminars, and clinical practice covering all phases of complete denture prosthetics. Special consideration is given to diagnosis and treatment planning, with clinical assignments in the treatment of cleft palate and other abnormalities.

#### Radiodontia

#### D703. Radiodontia: Junior. (2½ cr.) Dr. Spear, Miss Hannah, Dr. Matlock, and Staff.

The lectures include a study of the physical principles of radiography, terminology, manipulation of the X-ray machine, dangers of X rays, processing of films, and interpretation of radiographs. Students are assigned on service daily throughout the junior year to develop skill in radiographic technique and to learn to interpret radiographs.

#### D814. Radiodontia: Senior. $(\frac{1}{2} \text{ cr.})$

Dr. SPEAR, Miss HANNAH, Dr. MATLOCK, and Staff. Students are assigned to the radiodontia clinic to improve their radiographic technique and to gain added experience in interpreting radiographs.

#### Special Clinics

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

#### Summer Session

Clinical Dental Procedures. (6 cr.)

In this course students will be permitted to perform dental treatments in the School of Dentistry clinics. The course is offered to advanced students on a full or half-time basis. Students electing to spend full time in this course will be given six hours of elective credit.

# School of Dentistry Curriculum

## FRESHMAN YEAR

#### Semester Hours Credit

Semester	Hours Gre	dit			
Fit	rst Semester		Semeste		
	Laborat	ory La	borator		Total
Ter	ture Clinic	Testeres	or	Credit	Clock
				Hours	Hours
	2 3	0	0	5	120
Dhavaialaama	1 2	1	2	6	180
Cross Anstomy	$   \begin{array}{ccc}     0 & 0 \\     3 & 3   \end{array} $	53	33	8 12	$\frac{165}{270}$
Biochemistry	o o 3 2	0	0	14	105
		1	0	1	15
History of Dentistry	1 0	ō	0	1	15
Introduction to Dental Technics	0 0	1	1	2	45
and the second	Sand - Changer and the	along a based a			
Total				40	915
Sophon	IORE YEA	R			
	1 2	1	1	5	120
Operative Dentistry	1 3	î	$\hat{2}$	7	180
Oral Histology and Embryology	1 1	ō	0	2	45
Crown and Bridge	0 0	2	2	4	90
Microbiology	0 0	2	2	4	90
General Pathology Dental Materials Oral Hygiene	2 2	0	0	4	90
Dental Materials	2 0	1	0	3	45
Oral Hygiene	0 0	1/2 1	0	1/2 2	71/2
	0 0	1	1	2	45
Fundamentals of Occlusion	1 0	1	0	2	30 60
Partial Denture		2 1	1	3 6	135
Partial Denture	2 2	1	1	0	199
Total				421/2	937 1/2
10tal				40/2	00172
TUNIC	DR YEAR				
			~	-	0==
	1 3	1	2	7	$\begin{array}{c} 255\\ 120 \end{array}$
	$\begin{array}{ccc} 1 & 1 \\ 1 & 2 \end{array}$	1	$\frac{1}{2\frac{1}{2}}$	4 61/2	2021/2
		1	• 0	072	15
Radiodontia	2 1/2	0	0	21/2	521/2
Orthodontia	$\frac{1}{1}$ 0 <sup>72</sup>	1	1/2	21/2 21/2	521/2
Concept Anosthosis in Onel Surgeony	Î Ő	ō	0 12	1	15
Oral Diagnosis	1 1/2	1	1/2	3	75
Periodontia	1 1/2	0	1/2	2	60
Oral Surgery	$1 \frac{1}{2}$	1	1/2	3	75
Principles of Surgery	0 0	1	0	1	15
Internal Medicine	1 0	1	0	2	30
Oral Diagnosis Periodontia Oral Surgery Principles of Surgery Internal Medicine Pedodontia Advanced Pedodontia Technique	0 0	1	0	1	15 15
Advanced redouonne rechnique		0	1/2	1/2	15
Partial Denture	1 0 1 1/2	0	0	2	45
Civil Defense		1	0	1	15
Orvir Derense	0 0	T	0		10
Total				41	1,0721/2
SENIC	DR YEAR				
	0 0	1	0	1	15
Operative Dentistry	1 3	ō	3	7	285
Advanged Operative Technique	0 0	Ő	1/2	1/2	15
Pedodontia Crown and Bridge Oral Surgery Oral Diagnosis Periodontia	1 1	Ő	1	3	105
Crown and Bridge	1 3	0	3	7	285
Oral Surgery	$1 \frac{1}{2}$	1	· 1/2	3 1	75
Oral Diagnosis	1/2	0	1/2 1/2 1/2 1/2	1	45
		0	1/2	1	$\begin{array}{r} 45 \\ 240 \end{array}$
	0 2	1	3 0	6	15
Tuniannudence	0 0 0 0	1 1	0	1	15
Nutrition	0 0	1	0	1	15
Orthodontia	0 0	Ō	1/2	1/2	221/2
Public Health	1 0	Ő	0	1 "	15
Proventive Dentistry	0 0	1	0	1	15
Radiodontia	0 0	0	1/2	1/2	221/2
	0 0	1	0	1	$15 \\ 22\frac{1}{2}$
Endodontics	0 0	0	1/2	1/2	2272 15
Civil Defense	0 0	1	0	1	10
Total				38	1,2821/2
10tur					

This schedule is subject to change.

# Graduate Study in Dentistry

The Graduate School of the University offers courses open to graduates of dentistry leading to the degree Master of Science. In addition, the School of Dentistry also offers graduate training leading to the Master of Science in Dentistry. These courses are designed to afford advanced educational opportunities for persons interested in expanding their knowledge in certain phases of dentistry, in dental research, and in teaching. Essentially, those students who are desirous of practicing a clinical specialty are advised to work toward the M.S.D. degree, while those interested in dental education and research should prepare themselves for the M.S. degree.

A limited number of students who possess approved qualifications are accepted for graduate work. Application forms may be obtained from Dr. Joseph C. Muhler, Secretary, Graduate Dental Program, Indiana University School of Dentistry, Indianapolis, Indiana.

**Prerequisites.** The minimum prerequisites for the M.S. degree are the following:

1. A minimum of ninety semester hours of credit in the liberal arts college of Indiana University or an equivalent institution.

2. A degree B.S. in dentistry or a similar degree from Indiana University or a similarly approved institution.

3. A doctorate in dentistry from Indiana University or an equivalent degree from any other recognized dental school.

4. Grades of sufficient quality to meet the requirements of the Graduate School and of the Graduate Dental Program.

The prerequisites for the M.S.D. degree are the following:

1. A minimum of sixty semester hours of credit in the liberal arts college of an accredited institution.

2. A degree in dentistry, or its equivalent, from a recognized dental school.

3. Grades of sufficient quality to meet the requirements of the Graduate Dental Program.

**Requirements.** 1. Each graduate student will follow a program of study outlined by the Dean of the School of Dentistry and the chairman of the department involved. In the case of the Master of Science degree, approval by the Dean of the Graduate School is also required. The program will emphasize a thesis, as well as courses in the major and minor subjects, and will include courses in one or more closely allied fields.

2. At least thirty semester hours of University credit, excluding the thesis, must be earned, with a minimum of ten to twelve hours in the major subject. Not more than six credit hours may be allowed for clinical courses in the M.S. program and eight in the M.S.D. program.

3. Candidates for the degree Master of Science as well as for the degree Master of Science in Dentistry must conduct a research problem and prepare a satisfactory thesis. Credits of longer than five years' standing may not be counted toward the degree, except as validated by the Dean of the School of Dentistry and the Dean of the Graduate School.

4. Graduate students may become candidates for the degree Master of Science upon the certification by the Dean of the School of Dentistry to the Dean of the Graduate School that the student is qualified for advancement to candidacy; or upon recommendation of the chairman of his major department to the Dean of the School of Dentistry, the student may become a candidate for the degree Master of Science in Dentistry. This certification must occur at least thirty days before the completion of the program of graduate study.

5. Graduate students who complete this program of study and research with a high standard of achievement, and who pass successfully their comprehensive final oral and written examinations at the end of the period, will be eligible for the degree Master of Science or the degree Master of Science in Dentistry.

6. Those students working toward the degree Master of Science must demonstrate their proficiency in either French, German, or Russian.

More emphasis is placed upon theory courses in the M.S. program than in the M.S.D. program, since the latter is designed for dentists interested in practicing one of the dental specialties. In both programs, advanced training is available in oral pathology, dental materials, pedodontia, crown and bridge prosthodontics, radiology, operative dentistry, endodontia, orthodontia, periodontia, biochemistry, preventive dentistry, physiology, anatomy, and public health.

Interested students are referred to the Indiana University Bulletin of the Graduate School for further particulars regarding the Master of Science program and to the Bulletin of the Graduate Program of the School of Dentistry for additional information regarding the Master of Science in Dentistry program.

Fees. The basic fees for graduate students in the School of Dentistry are \$6 a credit hour for resident students, and \$14.25 a credit hour for nonresident students.

# Postgraduate Study in Dentistry

Students who are not eligible to enter the Graduate School or the Graduate Dental Program may take some of the above courses as postgraduate students. Students taking postgraduate courses will not be eligible for an M.S. degree or an M.S.D. degree, but academic credit will be given, and the grades earned will be recorded and will appear on official University transcripts.

## The Curriculum for Dental Hygienists

Dean and Professor HINE; Professor VAN HUYSEN; Associate Professor PHILLIPS; Assistant Professors MISSELHORN, PING; Instructors ACKERMAN, FISK (Director), HANNAH, MATLOCK, ROSENSTIHL, STANDISH, WILSON; Graduate Assistant BENJAMIN. In addition, staff includes faculty members from the School of Medicine, the Indiana University Center at Indianapolis, and the Indiana State Board of Health.

Because of the rapidly increasing need for dental hygienists, the Indiana University School of Dentistry offers a two-year curriculum leading to a certificate in Dental Hygiene. Both high school graduates and transfer students from other colleges and universities are eligible to enroll for this program.

The dental hygienist is proving to be a valuable aid to the dentist, since she can make an important contribution to the dental health of patients. The dental hygienist studies a professional program which entitles her, upon graduation and successful passage of a state board examination, to perform a specific service in the mouths of children and adults, to take and develop X rays, and to assume other responsibilities in the dental office, or to participate as a health worker in a city, state, or county health program. Dental hygienists should not be confused with dental assistants, since the training of a dental assistant is primarily vocational education, or on-the-job training, as she does not work directly on patients and is not licensed by the state. Most dentists who employ a dental hygienist also employ one or more dental assistants.

The history of the profession of dental hygiene is within the life span of many of its members. The profession emerged in the second decade of this century because some progressive members of the dental profession were convinced that dentistry should not be practiced solely for the *relief* of pain, but also for the *prevention* of such discomfort. Dentists began the practice of preventive methods, which meant that they required their patients to return to the office at regular intervals for a dental prophylaxis (cleaning of teeth) and to exercise daily home care of the mouth as instructed. The results of this type of practice were very gratifying, but so time-consuming that dentists did not have sufficient time for the necessary amount of restorative work which was still necessary, and which was their chief source of income.

Dr. Alfred C. Fones, of Bridgeport, Connecticut, solved the problem by training his dental assistant as a hygienist, so that she could perform a dental prophylaxis. Today courses for dental hygienists are offered by many of the leading colleges and universities of the country, and hygienists are licensed by law to practice in all forty-eight states, the District of Columbia, and Hawaii.

Since each year more qualified applicants apply than can be accepted, only those applicants who show an aptitude for, and interest in, a professional career and the ability to pursue academic work of college level are admitted. Applicants must be between eighteen and thirty years of age and graduates from an accredited high school. Their high school records must be of college preparatory quality and include courses in biology and chemistry. Many applicants are encouraged to attend a liberal arts college for a year or two before enrolling in the dental hygiene curriculum.

Dental hygiene students whose homes are not within commuting distance of the Medical Center can live in the nurses' cottage on the campus. The rent is \$25 a month. Meals can be obtained in the Student Union at a cost of approximately \$2 a day.

The fee for residents of the state of Indiana is \$90 a semester; for nonresidents, \$240 a semester. Equipment usage fee is \$10 a semester. Books, instruments, and uniforms cost approximately \$190 for the first year and \$100 for the second year.

Although the dental hygiene program can be completed in two years, students who wish to continue their education may apply their credits toward a bachelor's degree in the College of Arts and Sciences or the School of Education.

For further information, write the Director, Curriculum for Dental Hygienists, Indiana University School of Dentistry, 1121 West Michigan Street, Indianapolis 2, Indiana.

#### COURSES FOR TWO-YEAR CURRICULUM FOR DENTAL HYGIENISTS LEADING TO A CERTIFICATE

H103. Clinical Practice: First Year. (3 cr.) Miss FISK and Staff. In this course the student begins treatments of children and adult patients, and receives instruction in mouth examination and treatment planning in the Department of Oral Diagnosis. A series of lectures will be given to acquaint the student with various phases of dentistry.

H201-H202. Clinical Practice I-II: Second Year. (5-5 cr.)

Miss FISK and Staff.

Continuous experience on patients is received in the School of Dentistry and in the Riley Hospital. To integrate procedures taught in didactic courses with practice, students are assigned to the Departments of Oral Surgery and Radiology. Lectures on the various phases of dentistry are continued.

H104. Dental Anatomy: First Year. (3 cr.)

Dr. MISSELHORN, Miss ACKERMAN, Dr. WILSON. This course includes the gross study of the morphology of teeth, their arrangement, and occlusion. Reproductions are made of various types of human teeth.

H206. Dental Health Education Methods: Second Year. (2 сг.) Mr. Yoнo and Staff.

This course is designed to acquaint the student with the methods and materials used in teaching dental health in schools and in industry, and to patients in private dental practice.

H208. Dental Materials: Second Year. (2 cr.) Mr. PHILLIPS. This course introduces the student to materials used in restorative dentistry, prosthetic dentistry, and orthodontics, to a study of their manipulation, and, to a limited extent, to their actual application in dentistry.

#### English W101-W102. Elementary Composition I-II: First Year. (2-2 cr.) Staff.\*

This is a progressive course in written expression beginning with the mastering of the fundamentals of grammatical relationships and paragraph building and continuing to clear, forceful exposition in the statement of problems and autobiography.

English W103. Elementary Composition III: Second Year. (2 cr.) Staff.\*

This course involves further study of essay writing leading to the research paper.

#### H100-H101. Human Biology I-II: First Year. (4-4 cr.) Drs. Van Huysen, Standish.

This is a combined course including anatomy, physiology, and pathology, which assures better integration and more realistic approach. It is designed to give the fundamentals of gross and microscopical anatomy and physiology; the functions of the systems of the human body and the principles of disease production. Special emphasis is placed on the head and neck.

H105. General Chemistry: First Year. (3 cr.) Mr. YUNGHANS. This course is intended to give the student a sufficient knowledge of chemistry to prepare her to be a dental hygienist. Specific ideas in chemistry are correlated with working principles in dentistry. A previous knowledge of chemistry is almost essential.

Psychology P101. Introductory Psychology I: First Year. (3 cr.) Staff.\*

This is an introductory survey course in the field of general psychology with special reference to intelligence, individual differences, heredity and environment, motivation, emotion, learning, and personality.

Psychology P102. Introductory Psychology II: Second Year. (3 cr.) Staff.\*

In this half of the course, special reference is made to such fields as physiological, clinical, social, abnormal, industrial, and vocational psychology.

### Microbiology J107. Microbiology for Dental Hygiene Students: First Year. (3 cr.) Mr. RAIDT.

Included in this course is the study of the classification and differentiation of bacteria with emphasis placed on those found in the oral cavity, preparation of culture media and slides, fundamentals of immunity, and methods of sterilization.

Home Economics H206. Nutrition: First Year. (2 cr.)

Miss DUNHAM.

This course covers the study of the food needs of normal individuals of different ages, the selection of food for health, and a study of the nutritional status of the people of the United States.

H204. Oral Pathology: Second Year. (2 cr.) Dr. SHAFER. This course is designed to acquaint the student with developmental abnormalities and acquired disorders of the teeth and surrounding structures. Illustrated lectures and clinical observations are used to develop the student's concept of deviations from normal.

<sup>\*</sup> Instructors are appointed by the respective departments of the College of Arts and Sciences.

#### INDIANA UNIVERSITY

## H108. Pharmacology and Therapeutics: First Year. (1 cr.)

Dr. BENJAMIN.

In this course, the student learns something about the actions and uses of drugs and the theory of anesthetics, with emphasis placed on those used in dentistry.

#### Public Health H407. Public Health and Personal Hygiene: Second Year. (2 cr.) Mr. HOPPER.

This is an introductory course into the field of public health along with personal hygiene of the respiratory, digestive, nervous, endocrine, muscular, excretory, and circulatory systems.

Sociology S161. Principles of Sociology: Second Year. (3 cr.) Staff.\*

This course covers a factual description and a theoretical interpretation of personality, group, class, and community institutions; processes in cultural change.

Speech S121. Public Speaking I: Second Year. (2 cr.) Staff.\*

This is a basic course in the theory and practice of public speaking, giving training in thought processes necessary to organized speech content; personality; components of effective delivery; and use of voice, body, and language.

HPER H160. First Aid (Red Cross): Second Year. (2 cr.)

Mr. ANDREWS.

First-aid measures for wounds, hemorrhage, burns, freezing, sprains, dislocations, fractures, unconscious condition, suffocation, and poisons are presented with the medical background for all procedures.

H102. Dental Prophylaxis Technic: First Year. (3 cr.)

Miss ACKERMAN, Miss FISK, Mrs. ROSENSTIHL. In this course the student is instructed, on manikin heads, to develop operative technic in removing stains and deposits from the surfaces of teeth.

H203. Radiology: Second Year. (3 cr.)

Miss HANNAH, Dr. MATLOCK.

This course includes a study of the physical principles of radiographic terminology, manipulation of the equipment used, and dangers of roentgen rays (X rays); processing films, and interpretation within the limits of the field of practice for dental hygienists.

H209. Practice of Community Dental Hygiene: Second Year. (2 cr.) Mrs. Rosenstihl, Dr. Gish.

This course affords the student supervised field experience in a school health program through the co-operation of the State Board of Health.

\* Instructors are appointed by the respective departments of the College of Arts and Sciences.

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