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Indiana University School of Dentistry Indianapolis, Indiana

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**School of Dentistry** 

INDIANA UNIVERSITY

ANNOUNCEMENTS, 1958-59

INDIANA UNIVERSITY BULLETIN Bulletin
of the
School of Dentistry

Indiana University Bloomington, Indiana

# INDIANA UNIVERSITY BULLETIN

(OFFICIAL SERIES)

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Vol. LVI, No. 2 Bloomington, Indiana Jan. 10, 1958

# Calendar, 1958-59

### Indianapolis Campus

### First Semester, 1958-59

September 15Monday	Registration (clinics closed)
September 16 Tuesday	
September 17 Wednesday	Registration for graduate students
October 4 Saturday	Dental Alumni Day (classes will meet)
November 26,Wednesday, 12 noon	Thanksgiving recess begins
	(clinics closed during recess)
December 1 Monday, 8 a.m	
December 20 Saturday, 12 noon	
	(clinics closed during recess)
January 5 Monday, 8 a.m	Christmas recess ends
January 17 Saturday	
January 23 Friday	First semester ends

### Second Semester, 1958-59

February 2	,Monday	.Registration—classes begin
	Thursday, 5 p.m	. Spring recess begins
		(clinics closed during recess)
March 31	Wednesday, 8 a.m	.Spring recess ends
May 27	. Wednesday	. Final examinations begin
June 3	.Wednesday	. Second semester ends
June 8	.Monday	. Commencement

### Bloomington Campus

# First Semester, 1958-59

September 8	Monday, 8 a.m	New student meeting—Junior Division
September 10	Wednesday, 9 a.m	New student meeting—transfer and
6 . 1 011	M- 1 TL 1	graduate
September 8-11	Monday-Thursday	Counseling
	Friday, Saturday	
	Monday, 7:30 a.m	
October 31	Friday, 5 p.m	Mid-term reports due
November 25	Tuesday, 5:20 p.m	Thanksgiving recess begins
December 1	Monday, 7:30 a.m	Thanksgiving recess ends
January 14	Wednesday, 5:20 p.m	Classes end
	Thursday	
	Friday, 7:30 a.m	
January 23	Friday, 5:15 p.m	Examinations end

# Second Semester, 1958-59

January 27	Tuesday	New student meetings
January 28-29	Wednesday, Thursday	Counseling
	Friday, Saturday	
February 2	Monday, 7:30 a.m	Classes begin
March 20	Friday, 5 p.m	Mid-term reports due
March 25	Wednesday, 5:20 p.m	Spring recess begins
April 2	.Thursday, 7:30 a.m	
May 6	Wednesday	Founders' Day*
May 15	Friday	Senior Class Day†
May 22	Friday, 5:20 p.m	Classes end
May 23	Saturday	Reading day
May 25	Monday, 7:30 a.m	Examinations begin
May 30	.Saturday	Memorial Day holiday
June 2	Tuesday, 5:15 p.m	
June 8	Monday, 10 a.m	Commencement

<sup>\* 9:30, 10:30, 11:30</sup> and 12:30 classes do not meet.

<sup>†</sup> Seniors excused from classes beginning at 12:30 p.m.

# Table of Contents

PA	
Calendar, 1958-59	
Officers, Faculty, and Staff, 1957-58	3
General Information	11
Location of the School	11
Opportunities in Dentistry	11
History and Description	
The Library of the School of Dentistry	
Predental Students on the Bloomington Campus	
Living Expenses at Bloomington	
Living Expenses at Indianapolis	
Fees	
Health Service	
Honor Fraternity	
Fraternities	
Student American Dental Association	
Alumni Association  Alumni Bulletin	
Student Loans	
Lectures and Clinics	
Requirements for Admission, Promotion, and Graduation	16
Application for Admission	
Requirements for Admission	
Suggested Predental Course	
Dental Course	
Admission to Advanced Standing	
Rules for Attendance and Promotion	
Incomplete Grades	
Withdrawals	
Summer Sessions	
Undergraduate Courses, 1958-59	
Undergraduate Curriculum	
The Graduate Program	
Graduate Courses, 1958-59	
Major Fields of Graduate Study	
Postgraduate Study	48
The Curriculum and the Degree Program for Dental Hygienists	9-53

# Officers, Faculty, and Staff, 1957-58

#### ADMINISTRATIVE OFFICERS

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

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 Administrative 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; Chairman of Graduate Dental Education.

RALPH ERSKINE CLELAND, Ph.D., Dean of the Graduate School.

OSCAR OSBURN WINTHER, Ph.D., Associate Dean of the Graduate School.

Joseph Charles Muhler, D.D.S., Ph.D., Secretary of Graduate Dental Education.

#### FACULTY OF THE SCHOOL OF DENTISTRY

\*\* The faculty 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.

Paul Andrew Nicoll, Professor of Physiology; Chief of Party, Pakistan Contract.

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

HOWARD HAYES ROSTORFER, Professor of Physiology.

A.B., Wittenberg College, 1932; A.M., Ohio State University, 1935; Ph.D., 1940.

RIGHARD 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.

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, Associate 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, Associate 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., 1982.

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.

Lewis Rush Bailey, Acting Chairman, and Professor of Prosthetic Dentistry. D.D.S., Northwestern University, 1934.

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

GEORGE THADDEUS GREGORY, Consultant in University Hospitals, and Professor of Oral Surgery.

D.D.S., Indiana University, 1928.

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, Chairman, and Professor of Public Health. B.S., Massachusetts Institute of Technology, 1933; M.S., 1934; Ph.D., 1937.

Frank Carlyle Hughes, 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.

RICHARD ARTHUR MISSELHORN, Professor of Oral Diagnosis.
A.B., Indiana University, 1929; D.D.S., 1937.

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.

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 Radiodontia.

  D.D.S., Indiana Dental College, 1917.
- GRANT VAN HUYSEN, Chairman, and Professor of Oral Anatomy. 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.
- RALPH EARL McDonald, Chairman, and Associate Professor of Pedodontia. B.S., Indiana University, 1942; D.D.S., 1944; M.S., 1951.
- JOSEPH CHARLES MUHLER, Associate Professor of Basic Sciences. 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.
- RONALD STANLEY PING, Acting Chairman, and Associate Professor of Oral Surgery. D.D.S., Indiana University, 1941.
- WILLIAM GENE SHAFER, Chairman, and Associate Professor of Oral Pathology.

  B.S., University of Toledo, 1947; D.D.S., Ohio State University, 1947; M.S., University of Rochester, 1949.
- WILLIAM ALLEN SUMMERS, Associate Professor of Microbiology.

  A.B., University of Illinois, 1935; M.S., 1936; Ph.D., Tulane University of Louisiana, 1940.
- HENRY MAURICE SWENSON, Associate Professor of Periodontia. B.S., University of Illinois, 1941; D.D.S., 1942.
- 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.
- 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., 1934; M.S., University of Illinois, 1947; Ph.D., 1952,
- Donald M. Cunningham, Assistant Professor of Crown and Bridge, D.D.S., Indiana University, 1952.
- MARTIN DWORKIN, Assistant Professor of Basic Sciences.

  A.B., Indiana University, 1951; Ph.D., University of Texas, 1955.

A. Rebekah Fisk, Director of Dental Hygiene, and Assistant Professor in Clinic.

Dental Hygiene Certificate, University of Pennsylvania, 1923; R.D.H., 1923; B.S., Butler University, 1955.

FREDRICK AROLD HOHLT, Assistant Professor of Operative Dentistry. D.D.S., Indiana University, 1934.

Francis William Hughes, Assistant Professor of Pharmacology.

B.S., Temple University, 1949; M.S., 1951; Ph.D., University of Wisconsin, 1954.

GERALD GREGORY KILEY, Assistant Professor of Oral Surgery. D.D.S., Indiana University, 1925.

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.

Samuel Patterson, Assistant Professor of Operative Dentistry. D.D.S., Indiana University, 1940.

HAROLD RAIDT, Assistant Professor of Microbiology. B.S., University of Kentucky, 1933; M.S., 1934.

WILLIAM EDWARD ROGERS, JR., Assistant Professor of Basic Sciences. B.S., Massachusetts Institute of Technology, 1950; Ph.D., Indiana University, 1957.

Samuel Miles Standish, Assistant Professor of Oral Pathology. D.D.S., Indiana University, 1945; M.S., 1956.

Joe Gordon White, Assistant Professor of Prosthetic Dentistry. D.D.S., Indiana University, 1946.

ROBERT TRAVIS WILSON, Assistant Professor of Operative Dentistry. B.S., Indiana University, 1950; D.D.S., 1953.

MARTHA ANNE ACKERMAN, Instructor in Dental Hygiene.

Dental Hygiene Certificate, University of Michigan, 1951; R.D.H., 1951; 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.

James Joseph Baldwin, Instructor in Orthodontia.

A.B., DePauw University, 1947; M.S., Yale University, 1948; D.D.S., Indiana University, 1954.

ROBERT WILLIAM BARNETT, Instructor in Oral Diagnosis. B.S., Butler University, 1950; D.D.S., Indiana University, 1956,

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.

Lewis Donald Benjamin, Instructor in Operative Dentistry. B.S., Duquesne University, 1947; D.D.S., Indiana University, 1955.

ROBERT LEE BOGAN, Instructor in Crown and Bridge. B.S., Butler University, 1950; D.D.S., Indiana University, 1954.

JOHN BORKOWSKI, Instructor in Crown and Bridge.
A.B., Valparaiso University, 1951; D.D.S., Indiana University, 1955.

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.
- THOMAS ESMON, Instructor in Operative Dentistry.

  A.B., Indiana University, 1942; D.D.S., 1944.
- JOAN EVELYN FERBER, Instructor in Dental Hygiene.
  Dental Hygiene Certificate, Marquette University, 1956; R.D.H., 1956.
- CHARLES WILLIS GISH, Instructor in Pedodontia, and Consultant in Public Health Dentistry.

  D.D.S., Indiana University, 1949.
- ELIZABETH ALLISON GRAVES, Instructor in Pedodontia. D.D.S., Indiana University, 1948.
- FLOYD EUGENE HALE, Instructor in Prosthetic Dentistry. D.D.S., Indiana University, 1955.
- RUHAMAH HANNAH, Instructor in Radiology. A.B., Hanover College, 1941.
- Walter Scott Hargis, Instructor in Crown and Bridge (on leave of absence, beginning January 1, 1958).

  D.D.S., Indiana University, 1951.
- WILLIAM RAY HEINY, Instructor in Crown and Bridge. B.S. in Dent., Indiana University, 1951; D.D.S., 1954.
- CHARLES EDWARD HUTTON, Instructor in Oral Surgery. D.D.S., Indiana University, 1952.
- RICHARD EUGENE JENNINGS, Instructor in Pedodontia. D.D.S., Indiana University, 1945; M.S.D., 1956.
- 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.
- ARTHUR IRVING KLEIN, Instructor in Pedodontia.

  D.D.S., University of Pennsylvania, 1947.
- JOHN H. KOBY, Instructor in Operative Dentistry.

  D.D.S., Indiana University, 1956.
- CARL ROBERT KOHLMANN, Instructor in Operative Dentistry. D.D.S., Indiana University, 1948.
- WILLIAM IRVIN LAWRANCE, Instructor in Crown and Bridge.

  D.D.S., Indiana University, 1947.
- RALPH CALVIN McDowell, Instructor in Prosthetic Dentistry. D.D.S., Indiana University, 1954.
- JAMES FITCH MATLOCK, Instructor in Radiology. D.D.S., Indiana University, 1943.
- JOHN EDWARD MATTHEWS, Instructor in Operative Dentistry.

  B.S., Indiana University, 1948; D.D.S., 1956.

WILLIAM DONALD MICHELI, Instructor in Crown and Bridge. D.D.S., Indiana University, 1943.

DELMAR RAY MILLER, Instructor in Pedodontia.

B.S., Indiana State Teachers College, 1951; D.D.S., Indiana University, 1955.

JOHN ROBERT MINK, Instructor in Pedodontia. A.B., Indiana University, 1951; D.D.S., 1956.

ESTELL EDWARD MORRIS, Instructor in Oral Surgery.
A.B., Indiana University, 1949; D.D.S., 1953.

CHARLES O'BRIEN, Instructor in Oral Diagnosis. D.D.S., Indiana University, 1944.

George Edward Peffley, Instructor in Basic Sciences. B.S., Ball State Teachers College, 1953; D.D.S., Indiana University, 1957.

LLOYD JAMES PHILLIPS, Instructor in Periodontia. B.S., Indiana University, 1950; D.D.S., 1954.

Orbrey Orville Phipps, Jr., Instructor in Operative Dentistry. B.S. in Dent., Indiana University, 1955; D.D.S., 1956.

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.

Basil Wilbur Remley, Instructor in Oral Surgery.

A.B., Franklin College of Indiana, 1949; D.D.S., Indiana University, 1953.

(Mrs.) PHYLLIS WOLF RHODES, Instructor in Dental Hygiene.
Dental Hygiene Certificate, Indiana University, 1956; R.D.H., 1956.

WILLIAM HENRY RIFFLE, Instructor in Crown and Bridge. B.S. in Dent., Indiana University, 1952; D.D.S., 1955.

James Richard Roche, Instructor in Pedodontia. D.D.S., Indiana University, 1947.

RICHARD SCHNELL, Instructor in Dental Materials.
D.D.S., St. Louis University, 1946; A.B., Washington University, 1951; M.S., 1955.

JORDAN LEE SGULL, Instructor in Crown and Bridge. B.S. in Dent., Indiana University, 1952; D.D.S., 1955.

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.

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.

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 (second semester, 1957-58). B.S., University of Alberta, 1938; M.S., Western Reserve University, 1949.

LEON WARREN 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.
- MILES SHUMAKER BARTON, Consultant in Prosthetic Dentistry. B.S., Tarkio College, 1929; D.D.S., Indiana University, 1933.
- (Mrs.) Marjory Hennis Carr, Consultant in Pedodontia. A.B., Butler University, 1937; M.S., 1954.
- DONAL HELTON DRAPER, Consultant in Crown and Bridge. D.D.S., Indiana University, 1935.
- RICHARD HARVEY ERNSTING, Consultant in Crown and Bridge. D.D.S., Indiana University, 1952.
- 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.
- 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.
- DAVID BOYD McClure, Consultant in Pedodontia. B.S., Indiana University, 1950; D.D.S., 1953.
- CHARLES WILLIAM 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.
- MORRIS MEYER STONER, Consultant in Orthodontia. D.D.S., Indiana University, 1942; M.S., 1947.
- Lehman David Adams, Jr., Graduate Assistant in Oral Surgery.
  B.S., Wilberforce University, 1945; D.D.S., Indiana University, 1949.
- ROBERT WALLAGE BRESICK, Graduate Assistant in Oral Surgery.
  A.B., DePauw University, 1950; D.D.S., Indiana University, 1954.
- ROBERT RAYFORD BUCKLEY, Graduate Assistant in Pedodontia.

  B.S., University of Akron, 1949; M.S. in Ed., Butler University, 1951; D.D.S., Indiana University, 1957.
- DAVID LAWRENCE COOK, Graduate Assistant in Pedodontia. B.S., Indiana University, 1954; D.D.S., 1957.
- KIMSEY COWAN DOLE, Graduate Assistant in Periodontia. B.Sc., Alma College, 1947; D.D.S., Northwestern University, 1951.
- LAFORREST DEAN GARNER, Graduate Assistant in Pedodontia. D.D.S., Indiana University, 1957.
- HARRY R. KERR, Graduate Assistant in Oral Surgery. A.B., Indiana University, 1950; D.D.S., 1954.
- JOHN R. MONTGOMERY, Graduate Assistant in Prosthetic Dentistry. A.B., Indiana University, 1952; D.D.S., 1957.

RAFAEL NADAL, Graduate Assistant in Operative Dentistry.

D.D.S., University of Santo Domingo, 1953; D.D.S., Indiana University, 1956.

RAYMOND ROGER PRICE, Graduate Assistant in Dental Materials. B.S., Purdue University, 1942; D.D.S., Indiana University, 1951.

Burton Gerard Smith, Graduate Assistant in Oral Surgery.

A.B., Ohio State University, 1951; D.D.S., 1954.

Jackson Dean Todd, Graduate Assistant in Oral Surgery. A.B., Indiana University, 1951; D.D.S., 1955.

JORGE VON MOHR, Graduate Assistant in Crown and Bridge.
D.D.S., La Universidad Nacional Autonoma de Mexico, 1955; D.D.S., Indiana University, 1957.

#### OFFICIAL ASSISTANTS

LYNN BINKLEY, Chief Accountant.

(Mrs.) CLEONA HARVEY, Administrative Secretary, and Recorder.

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

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

JACK KILGORE, Dental Instrument Clerk.

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

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.

#### FACULTY COMMITTEES

Administrative—Dean Hine (Chairman), Drs. Adams, Bailey, Boyd, Healey, Hughes, Johnston, McDonald, Mitchell, Ping, Shafer, Spear, Swenson, Van Huysen, Professor Phillips, Miss Fisk, Mrs. Harvey.

Admissions—Dean Hine (Chairman), Drs. Bailey, Boyd, McDonald, Professor Phillips, Mrs. Harvey.

Advisory—Professor Phillips (Chairman), Drs. Boyd, Johnston, McDonald, Mrs. Harvey.

GRADUATE—Dean Hine (Chairman), Dr. Muhler (Secretary), Drs. Adams, Burstone, McDonald, Mitchell, Rogers, Shafer, Van Huysen, Professor Phillips.

Instrument—Dr. Boyd (Chairman), Drs. Bailey, Johnston, Mr. Kilgore (Clerk).

LIBRARY—Dean Hine, Dr. Van Huysen (Chairman), Drs. Dykema, Healey, McDonald, Mrs. Walker.

LOANS—Dean Hine, Professor Phillips (Chairman), Drs. Hohlt, Swenson.

Postgraduate—Dr. Johnston (Chairman), Drs. Bailey, Boyd, Gregory, McDonald, Mitchell, Shafer, Spear, Professor Phillips,

PROMOTIONS—Includes all instructors of each class.

STUDENT AFFAIRS—Dr. Hohlt (Chairman), Drs. Cunningham, Derry, Mitchell, Miss Fisk.

# General Information

Location of the School. Indiana University School of Dentistry is a professional school for men and women, offering a four-year curriculum leading to the degree Doctor of Dental Surgery. It is located at 1121 West Michigan Street, Indianapolis, Indiana, and is an integral part of Indiana University's Medical Center. The School of Dentistry is a member of the American Association of Dental Schools and is fully accredited by the Council on Dental Education of the American Dental Association.

Requests for information on dental education should be directed to the Indiana University School of Dentistry, 1121 West Michigan Street, Indianapolis 2, Indiana. Information may be obtained at the main office of the School of Dentistry at any time between 9 a.m.

and 5 p.m., Monday through Friday.

Beginning in September, 1958, all of the curriculum for the School of Dentistry will be presented on the Medical Center campus in Indianapolis. Students will gain their educational experience not only in the Dental School Building, but also in the Basic Health Sciences Building and in the hospitals on the Medical Center campus.

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 pediodontist 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. Dental education in Indiana began when the 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 covering the practice of dentistry in Indiana. The Indiana Dental College was the ninth dental school to be organized in America and it has successfully offered a program in dental education since that time. Graduates are to be found practicing in almost all civilized countries and in every state in the United States.

On June 1, 1925, by act of the Indiana legislature, the College was purchased by the state and became Indiana University School of Dentistry. In 1934, the present well-equipped Dental School Building was erected. In 1957-58, the School of Dentistry had a total registration of 362.

The Indiana University Medical Center consists of the School of Medicine, the School of Dentistry, the School of Nursing, the Robert W. Long Hospital, the James Whitcomb Riley Hospital for Children, the Kiwanis Wing, the Rotary Convalescent Home, the Basic Health Sciences 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.

Clinics. The facilities for clinical material at the 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 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, now relocated in larger quarters in the west wing on the first floor, contains about 43,000 items, of which more than 12,000 are texts; many of the items are bound periodicals, embracing all the fields of dentistry and

the essential fields in the allied sciences, including medicine. More than 350 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 binding. The library is gradually accumulating a collection of rare 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 two part-time student assistants, functions under the direction of the University Library on the Bloomington campus and a committee composed of five members of the faculty of the School of Dentistry.

Predental Students on the Bloomington Campus. For the convenience of these students, an office is maintained on the Bloomington campus by Maynard K. Hine, Dean of the School of Dentistry. Students may consult Margaret Littell, Room 202, 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 \$308.50 to \$435 a semester. Rates for married students vary from \$45 a month for a trailer to \$92.50 a month for a one-bedroom furnished apartment, according to type. Co-operative housing is available to men and women at \$65 or \$72.50 a semester, for a room only. Rooms in private residences may be obtained at an average price a semester of \$103.50 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 registered 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 \$7 a credit hour. Predental students who are not legal residents of the state of Indiana and who are registered in the above schools are charged a basic fee of \$18 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 within sixty days; 25 per cent refund if within ninety days.

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

days.

All students in the School of Dentistry are charged a matriculation fee of \$5 in the first year. Basic fees for resident students are \$215 a semester. All students who are not legal residents of the state of Indiana will be charged a basic fee of \$375 a semester.

An advance payment of \$25 on fees is required after a student has been accepted. These fees are not returnable. The diploma fee, payable thirty days prior to graduation, is \$15. If a duplicate diploma

is issued, a fee of \$5 will be charged.

Students should come prepared to pay fees, since students should not be admitted to class until fees are paid. 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 50 regarding fees and expenses for dental hygienists.

General Expenses. Books for the four years will cost approximately as follows: freshman year, \$114; sophomore year, \$100; junior

year, \$80; 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, \$130; sophomore year, \$300; junior year, \$175; senior year, \$50. Some of the nonexpendable instruments may be rented.

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, and the 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 by the component chapter of Theta Theta with Henry M. Swenson, president; Samuel Patterson, president-elect; Robert H. Derry, vice-president; and Donald M. 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 one third of the class.

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. Harry J. Healey was president in 1957-58 with Robert T. Wilson 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. Ralph W. Phillips is the editor.

Student Loans. 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.

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 School of Dentistry and have it approved early in their predental course to be certain

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

Н	Hours Hou	urs
English W101 Zoology Z103 Chemistry C105 *Mathematics M120 Military Training Physical Education	5   Zoology Z215     5   †Mathematics M180     3   Chemistry C106   1   Elective	2 5 2 1

### 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 of academic work, plus two hours of physical education and four hours of military training, 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); Ameri-

can Literature I-II-III (English L353-L354-L355).

Dental Course. Students may register each September for the dental course which consists of eight separate semesters of sixteen weeks each. 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 following curriculum has been approved for those students who wish

<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> Mathematics M130 or high school trigonometry is prerequisite to Physics P201. Students who have had trigonometry in high school should not repeat it in college.

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

F	FIRST	Year		
‡English W101 Zoology Z103 Chemistry C105 *Mathematics M120 Military Training Physical Education	fours  2 5 5 3 1 1 7	‡English W102 Zoology Z215 †Mathematics M130 Chemistry C106 Military Training Physical Education	. 5 . 2 . 5 . 1	rs
Sı	ECOND	YEAR		
‡English W103 Chemistry C341 Physics P201 ‡Group IV A Military Training	2 5 5 3 1 16	Physics P202  Group IV A  Psychology P101  Classics C209  Electives  Military Training	. 3 . 3 . 2 . 2	
Towns and the second	HIRD	YEAR		
‡Foreign Language ‡Group IV B Electives	5 3 7	‡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.

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, H305-H306-H307, H308-H309 Sociology: S161, and S162 or S163, and S301

<sup>\*</sup> See footnote for Mathematics M120 on preceding page.

<sup>†</sup> See footnote for Mathematics M130 on preceding page.

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

The courses of Group IV B are the following:

The Arts: Comparative Literature C225, Fine Arts H100, Music M174, and Speech S240 (Any three)
Classics: C150 and C160

Comparative Literature: Third- or fourth-year courses English: L101 and L102

Fine Arts: Courses in history of art

French: Third- or fourth-year courses of a literary character German: Third- or fourth-year courses of a literary character Greek: Second-, third-, or fourth-year courses of a literary character

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

Music: M101 and M102

Philosophy: Six hours from the total departmental offering, but must include P100, P200, P240, or P250
Russian: R305 and R306, or R354, R355, and R365

Spanish: Third- or fourth-year courses 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.

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.

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 who 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, or one summer session and one semester, of subsequent residence in the University. If a student fails to remove the Incomplete grade within the time allowed, the Incomplete will be changed to F. Both the student and the instructor in whose course the student received the Incomplete will be notified of this change in grade.

A student may not register 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.

When 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 if the Committee 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, it will inform the instructor that the grade of Incomplete should be changed to a grade of F.

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 will then send the appropriate "Removal

<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.

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: When 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. Withdrawals, approved by the dean of the 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. 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 will 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.

# Undergraduate Courses, 1958-59

\*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.

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.

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

Dr. MISSELHORN and Staff.

Morphological study of the teeth: their arrangement and occlusion.

D603. Histology and Embryology, Oral: Sophomore. (2 cr.)
Dr. Van Huysen.

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.) Dr. 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, Burks, Hargis.

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

D604. Crown and Bridge: Sophomore. (4 cr.)

Drs. Johnston, Dykema, Riffle, Scull, 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. (3-4 cr.)

Drs. Johnston, Borkowski, Dykema, Kemper, and Staff.

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

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

Drs. Johnston, Burks, 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. (4-4 cr.)

Drs. Johnston, Dykema, and Staff.

The lectures are on precision attachments, oral rehabilitation, and increased vertical dimension, and include seminar discussions of clinical cases. The clinical requirement is the construction of upper and lower anterior and posterior bridges, and individual crowns of gold, gold and porcelain, gold and plastic, and plastic and porcelain.

D871-D872. Partial Denture: Senior I-II. (1-1 cr.)

Drs. Johnston, Bogan, Cunningham.

Students are taught mouth preparation for and construction of clinical partial dentures.

#### 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

I650. 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.

# 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.) Dr. Muhler.

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, Gish. 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

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. (½ 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. (½ 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.

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. (1½-1½ cr.)

Drs. MITCHELL, MISSELHORN.

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. (½-½ cr.)

Drs. MITCHELL, MISSELHORN.

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

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.

D731-D732. Oral Surgery: Junior I-II. (1½-1½ cr.)
Drs. Gregory, Ping, Morris, 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.

D831-D832. Oral Surgery: Senior I-II.  $(1\frac{1}{2}-1\frac{1}{2} \text{ cr.})$ Drs. Gregory, Ping, Redish, and Staff, 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.) Drs. Adams, Burstone, and Staff.

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. (1-1½ cr.)

Drs. Adams, Burstone, and Staff.

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.

## 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 dental departments.

D815. Senior 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 Pedodontic Technique: Junior. (½ cr.)
Dr. McDonald.

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.)

Dr. McDonald 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.

#### Periodontia

D751-D752. Periodontia: Junior I-II.  $(1\frac{1}{2}-1\frac{1}{2} \text{ cr.})$ 

Drs. HINE, SWENSON, 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. (½-½ cr.)

Drs. Hine, Swenson, 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

History of Dentistry: Freshman. (1 cr.) Dr. Johnston. D504.

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.

## Prosthetic Dentistry

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

Lectures and laboratory exercises in the basic techniques relative to prosthetic den-

tistry. 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.

Prosthetic Dentistry: Junior I-II. (2-2 cr.) D761-D762. Drs. Bailey, 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.

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

Drs. Bailey, 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. (½ 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.)

Clinical Staff.

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 will be given six hours of elective credit.

# Undergraduate Curriculum in Dentistry

# FRESHMAN YEAR

	First Semester Second Semester Laboratory Laboratory Total or or Credit					Total
Courses	Lecture	or Clinic	Lecture	or Clinic	Credit Hours	Clock Hours
Histology	2	3	0	0	5	120
Oral Anatomy	1	2	1	2	6	180
Physiology	0	0	5	3	8	165
Gross Anatomy Biochemistry	3	3 2	3	3	12 5	270
Dental Seminar	0	0	1	0	1	105 15
History of Dentistry	1	0	0	Ö	1	15
Introduction to Dental Technics	0	0	1	1	2	45
Total					. 40	915
Sopi	HOMORI	E YEAR	R			
Prosthetic Dentistry	1	2	1	1	5	120
Operative Dentistry	1	3	1	2	7	180
Oral Histology and Embryology	1	1 0	0	0	2 4	45
Crown and Bridge	0	0	2 2	2 2	4	90
General Pathology Dental Materials	2	2	0	0	4	90
Dental Materials	2	0	1	0	3	45
Pharmacology	0	0	1 1	1 0	2 2	45 30
Fundamentals of Occlusion Oral Pathology	0	0	2	1	3	60
Partial Denture		2	ī	î	6	135
Total					. 42	930
Aden to broaden their dental	TATACA .	Vana				
	UNIOR		93.00		-	0==
Operative Dentistry Prosthetic Dentistry	1	3	1 1	2	7 4	255 120
Crown and Bridge		2 0	î	3	7	195
Dental Therapeutics	0	0	1	0	1	15
RadiodontiaOrthodontia	2	1/2	0	0	21/2	52½ 52½
Oral Diagnosis	1	1/6	1	1/2	3	75
Oral Diagnosis Periodontia	î	1/2	î	1/2	3	75
Oral Surgery	1	1/2	1	1/2	3	75
Internal Medicine	0	0	1	0	2½ 2½ 3 3 1 2	15 30
Pedodontia	0	ő	1	0	1	15
Pedodontia	0	0	0	1/2	1/2	15
Nutrition	1	0	0	0	1	15
Partial Denture*Civil Defense	1	0	1	1 0	3 1	75 15
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Total			•••••		. 42½	1,095
	ENIOR		inper	HITER STITE	illy the	EINERE
Applied Anatomy	1	0 3	0	0 3	1 7	15 285
Operative Dentistry	0	Ö	Ŏ	1/2	1/2	15
Pedodontia	1	1	0	1	3	105
Crown and Bridge	1	3	1	3 1/2	8	300 75
Oral Surgery	0	1/2	0	1/2		45
Periodontia	0	1/2		1/2	1 1	45
Prosthetic Dentistry Practice Management	1	2	0 1 1	2	6	210
Practice Management	0	0	1	0	1	15 15
Public Health	1	0	0	0	1	15
Public Health	0	0	1 0	0	1	15
Radiodontia	0	0	0	0 1/2	1/2	221/2
Senior Pathology Conference	0	0	0	1/2	1 1/2	15 22½
Endodontics Partial Denture	0	1	0	1	2	90
*Civil Defense	0	0	1	Ō	1	15
Total					. 391/2	1,320
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This schedule is subject to change.

<sup>\*</sup> This course is offered every other year.

# The Graduate Program in Dentistry

Graduate Faculty: Dean and Professor Hine (Chairman); Professors Adams, Hopper, Mitchell, Webb; Associate Professors McDonald, Muhler (Secretary), Phillips, Shafer; Assistant Professors Dworkin, Rogers; Consultant Howell.

Advisory Faculty: Professors Bailey, Boyd, Healey, Johnson, Spear, Van Huysen; Associate Professors Gregory, Swenson.

The School of Dentistry offers, in addition to work for the D.D.S. degree, a program leading to the degree Master of Science in Dentistry (M.S.D.). The purposes of the graduate dental program are to continue the advancement of knowledge by offering opportunities for further study and research to persons interested in dental problems and to educate dentists in methods of research in preparation for

teaching and dental education.

This 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 for private practice and, perhaps, to complete the academic requirements for their specialty boards. The M.S.D. degree is granted upon completion of at least 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 6 may be in an advanced clinical

practice investigation.

Under this program, it is possible, also, for a student to register in the Graduate School and work toward the M.S. or Ph.D. degree. Emphasis in the M.S. program must be placed on nonclinical aspects. The Ph.D. degree is available in the fields of anatomy, physiology, and chemistry and is pursued on the Bloomington campus. Those students who wish to work toward the M.S. degree must complete essentially the same requirements as outlined for the M.S.D., but, in addition, must possess a bachelor's degree and must satisfactorily complete the foreign language requirements as outlined by the Graduate School. More emphasis, too, is placed upon theory courses in the M.S. program than for those students interested in the M.S.D. 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. 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 their ability in dental research and education and who give good evidence of continuing in these fields. The M.S.D. degree may be granted in the following major areas of concentration: oral pathology, dental materials, pedodontia, crown and bridge prosthesis, denture prosthesis,

radiology, operative dentistry, endodontia, orthodontia, periodontia, biochemistry, preventive dentistry, physiology, anatomy, and public health.

Admission. Prospective students should request an application blank from: Dr. Joseph C. Muhler, Secretary, Graduate Dental Program, Indiana University School of Dentistry, 1121 West Michigan Street, Indianapolis 2, Indiana. Transcripts of undergraduate and professional work will be required, together with such additional material as may serve to determine eligibility and ability to conduct satisfactorily an advanced course of study. Only students who have an 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.

Requirements. Each student must take, in proper sequence, the required courses which comprise his major concentration and he must also select additional hours for a minor subject. The nature of the minor subject selected is dependent upon the ultimate goal of the student as well as his academic background. Generally speaking, the selection is an individual matter with a variety of subjects available. The final credit requirement is determined by each student's graduate committee and is usually dependent upon his academic background. The student must provide good evidence of his ability to do original work and to express clearly his thoughts and research accomplishments by satisfactorily completing an original research problem.

For graduate degrees in dentistry there is a time or residence requirement as well as a credit requirement. This residence requirement varies according to the department involved and the progress of the student. The term "residence" is defined as follows: A student acquires a semester (one half of an academic year) of residence by devoting all his time to his studies for that period. Students carrying less than a normal load will receive residence credit in proportion to the number of hours carried, at the rate of six weeks of residence credit for each five semester hours completed. No reduction in the time requirement will be made for work carried in excess of a normal load.

Candidates for degrees are assigned to a graduate faculty committee. This committee is composed of the Dean of the School of Dentistry, the secretary of the graduate dental program, the chairman of his major subject who serves as the chairman of his committee, and two additional graduate faculty members. It is the purpose of this committee to advise the student concerning his academic problems. The members of the student's committees will conduct final oral examinations covering essentially the candidate's fields of study. The student must be prepared at the time of his final examination not only to defend his thesis but also to give good evidence that he can clearly organize his thoughts and is capable of continuing the problem he began in the graduate dental program. No student will

be admitted to candidancy for the M.S.D. degree who fails to main-

tain a B average in his graduate studies.

It is important for the student to understand that he must complete his final oral and written examinations six months prior to his date of graduation. He is eligible to take these examinations upon the completion of one half of his course requirements. He must also deliver to the secretary of the graduate dental program four unbound copies of his thesis at least one month prior to the time of his "defense of thesis" examination, which in all instances must be at least forty-five days prior to graduation. The thesis must be prepared in a form acceptable to the graduate committee. An acceptance sheet signed by his committee, a 500-word abstract, and a vita must accompany his unbound thesis. The student will be required to bind three final copies of his thesis following its acceptance and the successful completion of his final examination.

Fees. All students registered in the graduate dental program are charged a matriculation fee of \$5 the first year. Fees for resident students in the graduate dental program are \$7 a credit hour, and for nonresidents \$15.25 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. The diploma fee, payable thirty days prior to graduation, is \$5.

# Graduate Courses, 1958-59

### Med. C603. General Pathology I. (1-4 cr.)

This course is an important prerequisite for the study of oral pathology. The general principles of various types of diseases in the human body are studied. Gross specimens and histologic material are utilized to demonstrate the manner in which living tissue responds to injurious agents.

## Med. K701. Pediatrics Lecture I. (1 cr.)

Didactic course. Junior year. One hour a week.

### G900. Statistics. (2 cr.)

An introduction into the problems of experimental design, including statistical methods for handling measures of central tendency, variation, reliability, and significance. Special emphasis will be placed on the determination of significance.

### G901. Advanced Oral Histology and Embryology. (2 cr.)

This course deals with the normal structures of the oral cavity, including their growth and development, with particular emphasis on the microscopic study of the tissues.

### G902. Advanced Oral Pathology. (1-6 cr.)

This course is designed to acquaint the student with all phases of disease of the oral cavity and adjacent structures. Oral manifestations of systemic disease are stressed as well as disturbances of growth and development, infections, and neoplasms. Microscopic study of tissue sections forms an important part of this course.

## G903. Histologic Technique. (1 cr.)

Since the preparation of tissue for microscopic study and the application of special techniques in both routine laboratory procedures and research form an important part of the pathologist's experience, this course is designed to demonstrate the theoretical and practical basis for the preparation of tissue.

# G904. Special Pathology of Neoplasms. (3 cr.)

Since neoplastic disease forms an important part of oral pathology, considerable time is devoted to the discussion and study of this subject. Microscopic diagnosis makes up a considerable portion of this course as well as discussion of the clinical features and treatment of tumors.

# G905. Special Pathology of Bone. (1-3 cr.)

This course deals with the histology, physiology, and pathology of bone with particular reference to the maxilla and mandible. It includes development, growth, maintenance, and functional adaptation of bone and a study of bone in pathologic states such as developmental disturbances, inflammatory disturbances, disturbances of metabolism, and tumors.

# G906. Tumor Clinic. (½ cr.)

In this clinic the student is able to observe the clinical manifestation of neoplastic diseases, follow the patients through the various types of therapy, and see the patients at various postoperative intervals. Special emphasis is placed on tumors of the head and neck.

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

This conference consists of the presentation of interesting cases, many of which are diagnostic problems. The student is expected to prepare several cases for presentation.

# G908. Radiologic Interpretation. (1 cr.)

Because radiologic studies form an important adjunct to pathologic diagnosis, the student must be familiar with all radiographic manifestations of normal and pathologic states. In this course, interpretation of radiographs is correlated with histologic findings.

G909. Recent Advances in Dentistry. (1 cr.)

The purpose of this course is to acquaint the graduate dental student with the presentday problem of the recent development in the various dental fields. A brief introduction to statistics and how research problems should be designed is presented.

G910. Seminar. (1 cr.)

G911. Theory of Dental Metallurgy. (1-5 cr.)

A discussion of composition, chemical reactions, physical properties, and the clinical significance of metals, resins, and other materials used in dentistry. It includes certain phases of metallography, physical chemistry, and physics pertinent to this field.

G912. Specifications and Test Methods in Dental Materials. (1-5 cr.)

Laboratory experiments, supplemented by lectures, to acquaint the student with the highly specialized test methods employed in this field for the evaluation of all materials by A.D.A. specifications.

G913. Clinical Application of Dental Materials. (1-4 cr.)

A series of laboratory experiments, outside reading, and seminar periods designed to teach the student the practical application of the basic knowledge, future avenues for research, and unique problems arising in the field of dental materials.

G914. Advanced Prosthetic Theory. (1-3 cr.)

This course embraces conference sessions, seminars, and lectures covering advanced theories of prosthetic denture service. Studies include discussions on the hinge axis, involved articulators, and comparative values of the various types of denture materials and prosthetic teeth.

G915. Advanced Prosthetic Clinic. (1-6 cr.)

Work in this area involves clinical practice in the treatment of patients, following the most advanced theories and practices suggested in G914.

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

This course embraces conference sessions, lectures, reading assignments, and clinical practice in the treatment of patients with difficult and unusual prosthetic denture problems.

G917. Maxillofacial Prosthesis. (1 cr.)

This course includes lectures, conference sessions, demonstrations, and clinical practice in the rehabilitation of patients with such abnormalities as cleft-palate and loss of tissue from tumors, accidents, war injuries, and congenital diseases.

G919. Research: Prosthetics. (Cr. arr.)

G920. Research: Oral Pathology. (Cr. arr.)

G921. Research: Dental Materials. (Cr. arr.)

G922. Research: Pedodontia. (Cr. arr.)

G923. Research: Crown and Bridge Prosthetics. (Cr. arr.)

G924. Research: Radiology. (Cr. arr.)

G925. Research: Operative Dentistry. (Cr. arr.)

G926. Research: Endodontia. (Cr. arr.)

G927. Research: Orthodontia. (Cr. arr.)

G928. Research: Periodontia. (Cr. arr.)

G929. Research: Biochemistry. (Cr. arr.)

G930. Research: Preventive Dentistry. (Cr. arr.)

G932. Research: Anatomy. (Cr. arr.)

G933. Research: Public Health. (Cr. arr.)

G934. Clinical Dentistry for Children. (1-6 cr.)

A course designed to acquaint the student with advanced clinical procedures in pedodontics. There is instruction in the clinical management and control of dental caries, hereditary and congenital abnormalities, and problems in growth and development. Oral habits, eruption problems, and preventive orthodontic procedures are discussed in seminar sessions.

G935. Dental Pediatrics. (2 cr.)

A course designed to acquaint the graduate student with the dental problems of the chronically ill and handicapped child. Lectures, discussions, and ward rounds are included in order to cover the normal and abnormal physical and emotional growth of the child.

G936. Clinical Technique for Children. (1-3 cr.)

This is essentially a technique course designed to acquaint the graduate student in pedodontics with appliances used in the treatment of minor malocclusion and oral abnormalities.

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 mutilated by accidents or extensive surgery.

G938. Advanced Removable Partial Denture Technique. (2-6 cr.) Includes precision attachments. Surveying of models and designing of applicances; planning over-all treatment for partially edentulous mouths.

G939. Porcelain Jacket Crown Technique. (2 cr.)

Construction of porcelain jacket crowns to dimension and form. Rebuilding nonvital or mutilated teeth to prepared form. Multiple construction in one arch and in opposing arches.

G940. Advanced Clinical Instruction in Crown and Bridge Prosthodontics. (1-6 cr.)

Clinical construction of porcelain jacket crowns, acrylic bridges, stabilizing splints, occlusal reconstruction, increasing vertical dimension, full mouth reconstruction, splinting of abutment teeth, and reconstruction of crown form of abutment teeth in preparation of mouths for removable bridges and partial dentures; construction of cases mounted with special consideration for the hinge axis.

G941. Advanced Crown and Bridge Technique. (1-4 cr.)

Laboratory construction of porcelain jacket crowns to dimension; reproduction of anatomic variation and color distribution; construction of plastic veneers and masking materials over gold to meet the requirements of the Hunter Color and Color Difference Meter; precision attachment technique.

G946. Advanced Radiology Clinic. (1-6 cr.)

A thorough study is made of the different faults and techniques that are used to obtain satisfactory X rays of the entire head and face.

G947. Cephalometrics. (4 cr.)

Prerequisite, G991. This course deals with the technique of procuring films of the living individual, the tracing of important facial landmarks and planes, the taking of significant angular and linear readings, and transposing same to a graph from which important conclusions may be drawn. The use of cephalometry as an aid in other phases of dentistry besides orthodontia is taught.

#### G948. Advanced Radiology. (1-3 cr.)

This course is designed to acquaint the student with the advanced practices of modern X-ray theory as well as with a presentation of X-ray hazards.

#### G950. Advanced Operative Dentistry. (1-6 cr.)

The student will gain experience in application of both basic and new concepts in operative procedure. Clinical assignments, under supervision of the advanced operative staff, will emphasize complete patient treatment with emphasis on meticulous and exacting technical procedures in the treatment of oral condition.

#### G951. Analysis of Operative Technique. (2 cr.)

This course will cover the theory of operative technique and procedure with emphasis on instrumentation for efficient cavity preparation and restorative procedures.

#### G952. Study of Indirect and Plastic Restorations. (2 cr.)

This rapidly developing field of operative dentistry affords the graduate student an opportunity to develop new methods of handling various procedures as well as mastering the chemical and physical knowledge necessary to manipulate many of the new dental materials.

#### G953. Recent Advances in Operative Dentistry. (2 cr.)

Clinical experience as well as the theory and basic information associated with the hydrocolloid and indirect casting technique, the airbrasive technique, high-speed diamond and carbide instrumentation will be covered.

#### G956. Advanced Endodontia. (1-6 cr.)

Clinical study of special endodontia problems involving advanced cases. Correlation of treatment, history, and prognosis are stressed.

## G957. Analysis of Endodontia Theory. (1-4 cr.)

Lecture course in which medication, application, and recent techniques are studied. Relationship to other branches of dentistry is shown.

## G958. Bio-Mechanics. (1-4 cr.)

Prerequisite, G963. Consideration is given to principles of force application used in altering dento-facial relationships. Special attention is given to appliance, design, fabrication, and activation. Specific treatment procedures are discussed in seminar and applied on the typodont in the laboratory.

## G959. Oral Microbiology. (1-3 cr.)

Special problems relating to the oral bacteria flora are presented with emphasis placed on their relationship to the various branches of dentistry.

## G960. Advanced Orthodontic Clinic. (1-6 cr.)

Students learn to execute the details of the treatment plan, based on careful analysis. Special attention is devoted to timing phenomena. Re-analysis is employed to check progress of treatment by very exacting means. Students assist in management of special cases of cleft palate, surgical correction, and temperomandibular syndrome.

## G962. Fundamentals of Occlusion. (2-4 cr.)

Lectures and seminar. Emphasizes basic normal and abnormal processes which influence occlusion of humans as compared to that of the herbivore, carnivore, and rodent to better illustrate the principles of occlusion. Study of the effects of unsatisfactory occlusion bring out the need for an understanding of facial form and function.

#### G963. Orthodontic Techniques. (2 cr.)

This course deals with the details of wrought and cast appliances used in the treatment of malocclusions. The exercises are planned to develop an attitude of perfectionism and maximum self-discipline.

#### G964. Dento-Facial Analysis. (2 cr.)

Prerequisite, G947. Methods of determining and evaluating deviation from normal dental, skeletal, muscular, and integumental patterns are considered. Emphasis is placed on treatment objectives with respect to stability, esthetics, and function.

## G965. Histophysiology and Pathology of the Periodontium. (1-3 cr.)

Gross clinical observations will be correlated with microscopic findings of the normal periodontium and the periodontium under stress of orthodontic care, periodontal disease, periapical pathology and other abnormal conditions.

#### G966. Advanced Clinical Periodontia. (1-4 cr.)

Clinical problems relating to advanced cases of special interest involving diseases of the soft tissue and bony support are treated and evaluated.

#### G967. Advanced Periodontia. (1-3 cr.)

A study of periodontal diseases as to etiology, symptomatology, treatment, and differential diagnosis,

#### G970. Advanced Biochemistry Laboratory. (1-3 cr.)

Special problems of interest in intermediary metabolism are stressed. Cellular respiration and experiments relating to inorganic metabolism are performed. Experimental hormonal problems are carried out by each student.

## G971. Intermediary Metabolism. (3 cr.)

Lecture course designed to acquaint the student with the metabolic pathways of fats, carbohydrates, and proteins. Special emphasis is placed upon cellular respiration and its effect on the oral tissues.

## G972. Proteins and Nucleic Acids. (2 cr.)

The essential facts regarding the composition of proteins and protein-like substances are discussed. The structure, method of analysis, and relation of protein to other biological factors are presented.

## G973. Vitamins, Mineral Metabolism, and Hormones. (2 cr.)

The structure and the relation to disease and metabolism of these substances are presented in relation to normal and abnormal dental diseases.

## G974. Advanced Nutrition. (2 cr.)

Special nutritional problems relating to calcification and soft tissue health are present. Emphasis is placed on the relation of fats, carbohydrates, proteins, vitamins, minerals, and drugs on the dental structures.

## G976. Advanced Preventive Dentistry. (2 cr.)

The theory by which soft tissue diseases and dental caries may be prevented are discussed. The importance of chemicals, drugs, and cosmetic agents in decreasing the initiation of dental disease is stressed.

## G977. Preventive Dentistry Laboratory. (1-3 cr.)

Study of the technique of caries-susceptibility tests which may be helpful to reduce oral diseases. The relationship of nutritional survey data to oral health is also evaluated.

## G990. Advanced Anatomy. (1-3 cr.)

This is an advanced lecture and laboratory course dealing with the gross anatomical features of the human body.

#### G991. Advanced Anatomy of Head and Neck. (1-3 cr.)

Advanced dissection of the various structures of the head and neck, with special emphasis on various age specimens. Dental abnormalities are stressed.

#### G992. Biology of the Tooth and Periodontium. (2 cr.)

This course consists of a gross and microscopical study of the tooth and periodontium, the pathology of these tissues, and some exercises using animals to illustrate the response of these tissues to operative and root canal treatments.

#### G993. Animal Experimental Procedures. (1-3 cr.)

This course is offered to familiarize the student with the handling of animals and the observation of results. The course consists of eight exercises and frequent conferences on the manipulation of animal tissues. Each student will develop an outline of exercises best suited for his particular interests.

#### G995. Biostatistics. (3 cr.)

Subjects presented include collection, tabulation, and elementary analysis of data; measures of central tendency and variability, tests of significance, and sampling from populations. The aim of the course is to prepare the students to draw justified conclusions from numerical data.

#### G996. Epidemiology. (2 cr.)

The cause of disease in respect to population groups is discussed. The relationship of survey studies as diagnosis and prognostic indices are evaluated.

#### G997. Sanitation and Industrial Hygiene. (3 cr.)

Technical approach to disease hazards in man's environment; considers community sanitation programs directed by public health agencies. Provides public health dentists with general perspective of principles, problems, and current control practices; includes special problems in sanitary legal control of milk and milk products, water, food, domestic wastes, air, insects, and rodents.

### G998. Health Education. (3 cr.)

Community-wide, school, and special health education programs are presented; procedures and media are studied and the important role of each team member in health education is emphasized.

## G999. Public Health Practice. (1-6 cr.)

Functions, scope, and historical background of public health; organization of official and voluntary public health agencies. Designed primarily to teach: (1) the purposes and objectives of public health; (2) principles of administration that underlie these organizational efforts. Includes programs in maternal and child health, mental health, public health, nursing, hospital services, and dental health.

## Major Fields of Graduate Study

#### **ANATOMY**

It is the purpose of this course to provide the basic information for the teaching of anatomy to dental students. This subject should be particularly inviting to those dentists interested in either oral surgery or orthodontia. A maximum of 15 hours in the major subject is required, and, in addition, 6 to 8 hours in a minor. A research project and a thesis are also required.

	Required Courses	
	Major: Anatomy	Hours
G901 G903 G909 G910 G932 G990 G991	Advanced Oral Histology and Embryology Histologic Technique Recent Advances in Dentistry Seminar (2 semesters, 1 kour each) Research Advanced Anatomy Advanced Anatomy Advanced Anatomy of Head and Neck Minor: 6 to 8 hours, credit arranged	1 1 2 Arr. 1-3
	ELECTIVE COURSES	
Med. G902 G904 G907 G908 G948 G971 G974	C603 General Pathology Advanced Oral Pathology Special Pathology of Neoplasms Oral Surgery Pathology Conference (2 semesters, ½ hour each) Radiologic Interpretation Advanced Radiology Intermediary Metabolism Advanced Nutrition	3 1 1 1-3

#### BIOCHEMISTRY

Perhaps no other single course except biochemistry could be rightly referred to as the father of preventive dentistry. A good understanding of biochemistry is necessary for the satisfactory understanding of almost every dental subject. An intimate relationship must exist between the health of the oral hard and soft tissues and their nutrition and metabolism. The M.S.D. degree in biochemistry is closely correlated with the program in preventive dentistry as well as in many of the other related fields. A total of 13 hours in the major concentration is required in addition to at least 10 hours from the selected elective courses. An original piece of research and a thesis are also required.

	Major: Biochemistry	Hours
G909 G910	Recent Advances in Dentistry	1 2
G929 G970 G971	Research Advanced Biochemistry Laboratory Intermediary Metabolism	Arr. 1-3
G972 G973	Proteins and Nucleic Acids	2 2
G974	Advanced Nutrition	2

#### ELECTIVE COURSES

G959	Oral Microbiology		1-
G976	Advanced Preventive	Dentistry	2

#### CROWN AND BRIDGE PROSTHETICS

The M.S.D. is conferred upon dentists who complete a prescribed program of study emphasizing subjects valuable to one interested in crown and bridge prosthesis; it consists of a minimum of 10 to 12 hours in the major field, 6 to 8 hours in a selected minor, 6 hours from the electives, and a research problem and a thesis. The correlation between dental metallurgy and prosthetics is stressed, and the student is provided with sufficient didactic and clinical instruction to provide him with the fundamentals of modern crown and bridge prosthodontics.

#### Required Courses

	Major: Crown and Bridge Prosthetics	Hours
G909	Recent Advances in Dentistry	1
G910	Seminar (2 semesters, 1 hour each)	2
G911	Theory of Dental Metallurgy	1-5
G923	Research	Arr.
G937	Advanced Clinical Instruction in Removable Partial Denture Prosthodontics	2-6
G938	Advanced Removable Partial Denture Technique	2-6
G939	Porcelain Jacket Crown Technique	2
G940	Advanced Clinical Instruction in Crown and Bridge Prosthodontics	1-6
G941	Advanced Crown and Bridge Technique	1-4
G962	Fundamentals of Occlusion	2-4
G976	Advanced Preventive Dentistry	2
	Minor: 6 to 8 hours, credit arranged	

#### ELECTIVE COURSES

G912 G913 G948 G956 G967	Advanced Oral Histology and Embryology Specifications and Test Methods in Dental Materials Clinical Application of Dental Materials Advanced Radiology Advanced Endodontia Advanced Periodontia	2 1-5 1-4 1-3 1-6 1-3
G974	Advanced Nutrition	2

#### DENTAL MATERIALS

A thorough knowledge of dental materials is essential for a dentist practicing in any clinical field. A high percentage of the failures seen daily in the dental office can be attributed to the improper use of dental products. The study of both theory and practice relating to the subject of dental materials is a science in itself; this study is especially pertinent in the present era of dentistry where the picture is changing so rapidly. In the undergraduate curriculum it is possible to provide only a survey of the field. The purpose of this graduate course is to acquaint the graduate dentist with the theory, philosophy, and use of dental materials in order that he may more intelligently face the daily problems contingent on this area. In order to qualify for the M.S.D. in dental materials, the student must complete a minimum of 13 hours in his major, 6 to 8 hours in a minor subject, and 7 hours of selected elective courses. Original research and a satisfactory thesis are also required.

## REQUIRED COURSES

	aradjot : Dontal aradicinus	Hours
G909 G910 G911 G912 G913 G921 G976	Recent Advances in Dentistry Seminar (2 semesters, 1 hour each) Theory of Dental Metallurgy Specifications and Test Methods in Dental Materials Clinical Application of Dental Materials Research Advanced Preventive Dentistry Minor: 6 to 8 hours, credit arranged	1-5 1-4 Arr.
	Elective Courses	
G936 G941 G951	Clinical Technique for Children Advanced Crown and Bridge Technique Analysis of Operative Technique	1-3 1-4 2

#### **ENDODONTIA**

It is now well established that the pulpless tooth can be retained within the oral cavity without harm to the patient and can serve a worthwhile function for bridge abutments, jacket crowns, and so forth. This is a result of the rapid recent advance in endodontia. The M.S.D. degree with a major in endodontia is available to those interested in this specialty of dentistry. A minimum of 16 hours is required in the major field and 6 to 8 hours in an elective subject. In addition, a research project and a thesis are required.

## REQUIRED COURSES

	Control of the contr	
	Major: Endodontia	Hours
G902 G905 G908 G909 G910 G926 G948 G956 G957 G959 G976	Advanced Oral Pathology Special Pathology of Bone Radiologic Interpretation Recent Advances in Dentistry Seminar (2 semesters, 1 hour each) Research Advanced Radiology Advanced Endodontia Analysis of Endodontia Theory Oral Microbiology Advanced Preventive Dentistry Minor: 6 to 8 hours, credit arranged	1 1 2 Arr. 1-3 1-6 1-4 1-3
	Elective Courses	
G901 G906 G935 G941 G952 G953 G962 G974	Advanced Oral Histology and Embryology Tumor Clinic (2 semesters, ½ hour each) Dental Pediatrics Advanced Crown and Bridge Technique Study of Indirect and Plastic Restorations Recent Advances in Operative Dentistry Fundamentals of Occlusion Advanced Nutrition	. 1-4 2 2 2 2-4

#### OPERATIVE DENTISTRY

With the advent of the newer restorative materials, the new techniques, and the new cutting instruments, the field of operative dentistry for the adult is becoming an increasingly more difficult one in which to keep well informed. It is the purpose of the M.S.D. in restorative dentistry to correlate the newer restorative methods, instruments, and materials with both the theory and clinical applications that may be experienced in general practice. The program is designed to give sufficient experience in related fields; thus, it provides the dental graduate with an adequate background to become a dental instructor in either adult restorative dentistry or endodontia. A minimum of 15 hours is required in the major concentration and 6 hours from the selected electives, in addition to a research project and a thesis.

#### Required Courses

	Major: Operative Dentistry	Hours
G901 G909 G910 G911 G925 G950 G951 G952 G953 G976	Recent Advances in Dentistry Seminar (2 semesters, 1 hour each) Theory of Dental Metallurgy Research Advanced Operative Dentistry Analysis of Operative Technique Study of Indirect and Plastic Restorations Recent Advances in Operative Dentistry	. 1 . 2 . 1-5 . Arr. 1-6 . 2 . 2
	Elective Courses	
G902 G948 G956 G967 G974 G976	Advanced Endodontia Advanced Periodontia Advanced Nutrition	1-3 1-6 1-3

#### ORAL PATHOLOGY

The purpose of this graduate program in oral pathology is to train persons who desire to prepare themselves for a career in teaching and research. The training of individuals who wish to enter general practice in dentistry is not encouraged under this particular program, since courses in other departments where more clinical experience is available would be more beneficial to them. The principal objectives of this specific program are: to prepare dentists for research and the teaching profession; to build a firm foundation of knowledge in the basic fields kindred to oral pathology; to correlate oral clinical pathology with oral histopathology; and, finally, to develop an attitude and appreciation for the methods and principles of research in a basic science.

A stereotyped program cannot be provided for each student; the programs of no two students will be identical. Rather, it is believed that a well-defined program can be outlined for each student to meet his personal interests and fulfill his objectives. The following program is suggested as meeting the minimum didactic requirements, although it is advisable also for the student to take courses in other subjects to broaden his understanding of the field of oral pathology.

## REQUIRED COURSES

	Major: Oral Pathology	Hours
Med. G901 G902 G903 G904 G905 G906 G907 G908 G909 G910 G920	C603 General Pathology I Advanced Oral Histology and Embryology Advanced Oral Pathology Histologic Technique Special Pathology of Neoplasms Special Pathology of Bone Tumor Clinic (2 semesters, ½ hour each) Oral Surgery Pathology Conference (2 semesters, ½ hour each) Radiologic Interpretation Recent Advances in Dentistry Seminar (2 semesters, 1 hour each) Research Minor: 6 to 8 hours, credit arranged	. 2 . 1-6 . 1 . 3 . 1-3 . 1 . 1
	Elective Courses	
G948 G959 G967 G974 G976 G996	Advanced Radiology Oral Microbiology Advanced Periodontia Advanced Nutrition Advanced Preventive Dentistry Epidemiology	1-3 2

#### **ORTHODONTIA**

The modern orthodontist must be well versed in radiology, restorative and prosthetic dentistry, and periodontia, as well as in the basic science fields. Also, he must understand the fundamental principles of nutrition and preventive dentistry, since the future outcome of his treatment rests solely upon the health and condition of the oral soft and hard tissues. Therefore, the responsibility for selecting a wide variety of topics is important to the student interested in orthodontics. A minimum of 10 to 12 hours is required in the major field, 6 to 8 hours in a minor, and 8 hours from the elective courses. A thesis and a research problem are also required.

## REQUIRED COURSES

	REQUIRED COURSES	
	Major: Orthodontia	Hours
G909 G910 G927 G960 G962 G963	Recents Advances in Dentistry Seminar (2 semesters, 1 hour each) Research Advanced Orthodontic Clinic Fundamentals of Occlusion Orthodontic Techniques Minor: 6 to 8 hours, credit arranged	. Arr. 1-6 2-4
	Elective Courses	
G900 G901 G902 G905 G912 G935 G946 G991	Statistics Advanced Oral Histology and Embryology Advanced Oral Pathology Special Pathology of Bone Specifications and Test Methods in Dental Materials Dental Pediatrics Advanced Radiology Clinic Advanced Anatomy of Head and Neck	2 1-6 1-3 1-5 2 1-6

#### **PEDODONTIA**

The program of graduate instruction in pedodontics is designed to prepare a graduate dentist to practice pedodontics as a specialty. It is likewise intended to provide an educational background for those who intend to enter the field of pedodontic teaching or research.

The objectives of the course are as follows:

(1) Develop in the student the ability to manage or direct the child patient's behavior in a dental chair and the child-parent relationship during the appointment;

(2) Develop mastery of the operative and prosthodontic procedures which may be instituted scientifically for the primary and

immature permanent dentition:

- (3) Obtain a thorough knowledge of the properties of the materials employed and outstanding skill in the manipulation of these materials:
- Develop skill in the removal of teeth for the age groups being treated and the management of the minor oral surgery problems that arise in a children's practice;
- Become familiar with the practice of modern endodontics and therapy for pulp-involved teeth and management of a condition involving teeth traumatized during accidents;
- Acquire ability to diagnose and treat any growth, developmental, and health problem of childhood which is legitimately within the province of the pedodontist;

Acquire ample knowledge with which to direct the child's and parents' instruction in an adequate dental health program and

to institute all proved preventive measures.

The Master of Science in Dentistry with a major in pedodontics will require a minimum of thirty semester hours of credit. A total of 10 to 12 hours is required in the major, 6 to 8 hours in a selected minor, and, in addition, 6 hours in an elective field of study, besides the satisfactory completion of an original research problem.

	Required Courses  Major: Pedodontia	Hours
G902 G909 G922 G934 G935 G962 G974 G976	Advanced Nutrition	1-6 1 Arr. 1-6 2 2-4 2
	ELECTIVE COURSES	

## 1-5 1-3 1-3

G911 Theory of Dental Metallurgy
G936 Clinical Technique for Children
G948 Advanced Radiology
G956 Advanced Endodontia
G967 Advanced Periodontia 1-6 G996 Epidemiology

#### **PERIODONTIA**

The relationships between problems of occlusion, nutrition, biochemistry, bacteriology, and pathology are all stressed for the student interested in improving his knowledge and skill in the treatment of diseases of the oral soft tissue. The M.S.D. degree may be obtained

after satisfactorily completing at least 17 hours of work in the major fields and 6 hours from the selected elective courses. An original research problem and a thesis are also required.

#### REQUIRED COURSES

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	Major: Periodontia	Hours
G902 G905 G909 G910 G928 G962 G966 G967 G974 G976	Advanced Oral Pathology Special Pathology of Bone Recent Advances in Dentistry Seminar (2 semesters, I hour each) Research Fundamentals of Occlusion Advanced Clinical Periodontia Advanced Periodontia Advanced Nutrition Advanced Preventive Dentistry Minor: 6 to 8 hours, credit arranged	Arr. 2-4 1-4 1-3 2
	ELECTIVE COURSES	
G901 G908 G948 G971	Advanced Oral Histology and Embryology Radiologic Interpretation Advanced Radiology Intermediary Metabolism	2 1 1-3 3

#### PREVENTIVE DENTISTRY

It would not be difficult to justify the existence of a major study program in preventive dentistry, for probably upon no other subject does the autonomous future of dentistry depend. The M.S.D. study program in preventive dentistry is based upon a thorough correlation between public health, periodontia, and dental caries, and is clearly dependent upon the course in radiology. The application of biochemistry principles, the understanding of caries diagnostic tests, and the relationship of nutrition to dentistry are all stressed in this program. A minimum of 18 hours in the major field is required, in addition to 6 hours from the selected elective courses, besides a thesis and a research problem.

	THE CHAPTER COOKSES	
	Major: Preventive Dentistry	Hours
G909 G910 G930 G971 G973 G976 G977	Recent Advances in Dentistry Seminar (2 semesters, 1 hour each) Research Intermediary Metabolism Vitamins, Mineral Metabolism, and Hormones Advanced Preventive Dentistry Preventive Dentistry Laboratory	Arr. 3 2 2 2
G996 G999	Preventive Dentistry Laboratory Epidemiology Public Health Practice Minor: 6 to 8 hours, credit arranged	. 1-6
	Elective Courses	
G902 G934 G948 G974	Advanced Oral Pathology Clinical Dentistry for Children Advanced Radiology Advanced Nutrition	. 1-6

#### PROSTHETIC DENTISTRY

Due to the complex problems involved and the difficulties encountered in general practice in the field of prosthetic dentistry, an increasing need has arisen for additional training and guidance at the graduate level. The advanced course in prosthetics leading to the M.S.D. degree is intended to provide a wide variety of clinical experience, with the more difficult prosthetic cases coupled with a sufficient number of theory courses to broaden the interested practitioner in this field. A minimum of 12 hours in the major field is required. In addition, 8 hours in a minor subject, 6 to 8 hours in elective courses, and a satisfactory thesis are required.

	Required Courses	
	Major: Prosthetics	Hours
G902 G909 G910 G914 G915 G916 G917 G919 G940 G962	Advanced Oral Pathology Recent Advances in Dentistry Seminar (2 semesters, 1 hour each) Advanced Prosthetic Theory Advanced Prosthetic Clinic Special Problems in Prosthetic Design Maxillofacial Prosthesis Research Advanced Clinical Instruction in Crown and Bridge Prosthodontics Fundamentals of Occlusion	2 1-3 1-6 1-4 1 Arr. 1-6
G991	Advanced Anatomy of Head and Neck Minor: 6 to 8 hours, credit arranged	1-3
	Elective Courses	
	Surgical consideration in prosthodontia:	
G901 G911 G913 G947 G948 G967 G974	Advanced Oral Histology and Embryology Theory of Dental Metallurgy Clinical Application of Dental Materials Cephalometrics Advanced Radiology Advanced Periodontia Advanced Nutrition Advanced Preventive Dentistry	1-5 1-4 4 1-3 1-3

#### PUBLIC HEALTH

With the current interest in communal fluoridation, child health school programs, and public health in general, there is a constant need for dentists specially skilled in public health methods. This course is correlated with preventive dentistry and is designed for those interested in preventive measures. It consists of a maximum of 16 hours in the major field, 7 to 9 hours in an elective minor, and a satisfactory thesis.

	Major: Public Health	Hours.
G933 G995	Research Biostatistics	Arr.
G996 G997	Epidemiology Sanitation and Industrial Hygiene	2 3
G998 G999	Public Health Practice	3
	Minor: 7 to 9 hours, credit arranged	

#### ELECTIVE COURSES

G908 G971 G974	Radiologic Interpretation Intermediary Metabolism	1 3
	Advanced Nutrition	2
G976	Advanced Preventive Dentistry	2
G977	Preventive Dentistry Laboratory	1-3

#### RADIOLOGY

The pedodontist, endodontist, orthodontist, pathologist, and oral surgeon could not adequately practice their specialties of dentistry were it not for radiology. The dental graduate interested in radiology may eventually expect to become a part of a separate and distinct branch of dentistry—the dental diagnostician. Such an individual could serve as a dental consultant for the caries-rampant child, the periodontist, pedodontist, orthodontist, or oral surgeon, or perhaps combine his knowledge with the pathologist and biochemist and actually be responsible for the caries-rampant child in a capacity other than in restorative dentistry. In combination with the pathologist and biochemist, he may serve the oral surgeon and periodontist in the diagnosis and treatment planning of periodontal and surgical problems. If the dental graduate is interested in such a service to the profession and the public, he should become thoroughly versed in preventive dentistry, nutrition, biochemistry, and oral pathology, and his study program should include electives in all of these fields. To obtain the M.S.D. degree in radiology, a minimum of 10 to 12 hours is required in the major, 6 to 8 hours in a minor, and 6 to 8 hours from the selected electives, A research problem and a thesis are also required.

	Major: Radiology	Hours
G902 G905 G908 G909 G910 G924 G946 G947 G948	Advanced Oral Pathology Special Pathology of Bone Radiologic Interpretation Recent Advances in Dentistry Seminar (2 semesters, 1 hour each) Research Advanced Radiology Clinic Cephalometrics Advanced Radiology Minor: 6 to 8 hours, credit arranged	1-6 1-3 1 2 Arr. 1-6 4 1-3
	Elective Courses	
G976	Special Pathology of Neoplasms  Advanced Nutrition  Advanced Preventive Dentistry  Preventive Dentistry Laboratory	2

## Postgraduate Study in Dentistry

Students who are not eligible to enter the Graduate School or the Graduate Dental Program may take some of the 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. The grades earned will be recorded in the Office of Records and Admissions; they will also appear on official University transcripts.

## The Curriculum for Dental Hygienists

Dean and Professor Hine; Professors Misselhorn, Van Huysen; Associate Professors Phillips, Ping; Assistant Professors Fisk (Director), Standish, Wilson; Instructors Ackerman, Benjamin, Hannah, Matlock, Rhodes. 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 register 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. A few dentists became interested in developing preventive methods and 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 most 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 must include courses in biology and chemistry. Many applicants are encouraged to attend a liberal arts college for a year or two before they register in the dental hygiene curriculum.

Dental hygiene students whose homes are not within commuting distance of the Medical Center can live in cottages on the campus. The rent is \$27.50 a month.\* Meals can be obtained in the Student Union at a cost of approximately \$2 a day.

Dental hygiene students who are legal residents of the state of Indiana are charged a basic fee of \$7 a credit hour—\$119 a semester; for nonresidents, the basic fee is \$18 a credit hour—\$306 a semester. Books, instruments, and uniforms cost approximately \$200 for the first year and \$100 for the second year.

For further information, write to 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. (4 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 cr.)
Mr. Coon, Mr. Chapman.

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.

<sup>\*</sup> Rates are subject to change.

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

This is a progressive course in written English, beginning with the establishment of acceptable standards and the acquirement of fundamental skills in writing, and proceeding to intensive treatment of particular problems of exposition.

# 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.

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

## H105. General Chemistry: First Year. (3 cr.) Mr. Rogers.

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.

# Education P100. Introduction to Educational Psychology. (First year.) (3 cr.) Staff.\*\*

An introduction to general psychology, designed to give the student an understanding of himself and other people through the study of sensation, emotion, intelligence, personality, motivation, learning, thinking, and the nervous system. Lectures and class discussion will be supplemented by group and individual experiments and demonstrations.

### Education P200. Child Development. (Second year.) (3 cr.) Staff.\*\*

Prerequisite, P100 or equivalent. This course considers children's mental, physical, emotional, and social development in relation to their adjustment to school, with emphasis on the kinds of attitudes, knowledge, and habits that are characteristic of teachers who understand children.

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

Required course for dental hygienists. Basic problems of dental microbiology are considered in lectures and laboratory. Emphasis is placed on host-parasite relationships as particularly related to bacterial, fungal, and viral infections. Methods of sterilization and aseptic techniques are likewise emphasized.

#### Home Economics H206. Nutrition. (First year.) (2 cr.) Miss Dunham.

The food needs of normal individuals of different ages; the selection of food for health; a study of the nutritional status of the people in 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.

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 describes and interprets the nature of interpersonal relationships, societies, groups, and communities, and such institutional areas as the family, industry, and religion; the social process operating within these areas; their significance for problems of personality, human nature, social disorganization, and social 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.) (1 cr.)
Staff.

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

H102. Dental Prophylaxis Technic: First Year. (3 cr.)
Miss Fisk, Miss Ackerman, Mrs. Rhodes.

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.) Dr. Gish, Miss Ferber.

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

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

#### DENTAL HYGIENE CURRICULUM

#### FIRST YEAR

	First	Semester	Second	Semeste	r	
		Laborator	y La	boratory		Total
	-	or		or	Credit	Clock
Courses	Lectur	re Clinic	Lecture	Clinic	Hours	Hours
Human Biology	3	1	3	1	8	160
English Composition		0	2	0	4	68
Nutrition		0			2	34
Dental Anatomy		2			3 3	96 48
General Chemistry	3	0			3	48
Technique	1	2			3	80
Microbiology		-	1	2	3	80
Introduction to Educational Psychology			3	Õ	3	51
Pharmacology and Therapeutics			í	0	1	22
Clinical Practice			1	3	4	160
Total					. 34	799
		**				
SE	COND	YEAR				
Public Speaking	2	0			2	34
Oral Pathology	2	0	0	^	2 3	32
Principles of Sociology		4	3	0 4	10	51 422
Dental Materials		1	1	4	2	48
Radiology		1				80
English Composition		-	2	0	3 2 2 2 2 3	34
Dental Health Education Methods			2	0	2	32
Public Health and Personal Hygiene			2	0	2	32
Child Development			$\begin{array}{c} 2 \\ 2 \\ 2 \\ 3 \\ 1 \end{array}$	0		51
First Aid				0	1	22
Community Practice of Dental Hygiene			0	*2	2	105
m. 4-3					0.4	0.40
Total					. 34	943
Grand Total						1,742

#### DEGREE PROGRAM FOR DENTAL HYGIENISTS

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.

Transfer students from other colleges and universities may register for either the certificate or the degree program. All applications will be reviewed by the Registrar and the Committee on Admissions. Although credit will be granted for comparable liberal arts courses, the student will be required to take all of the required professional courses.

<sup>\* 105</sup> hours of field work.