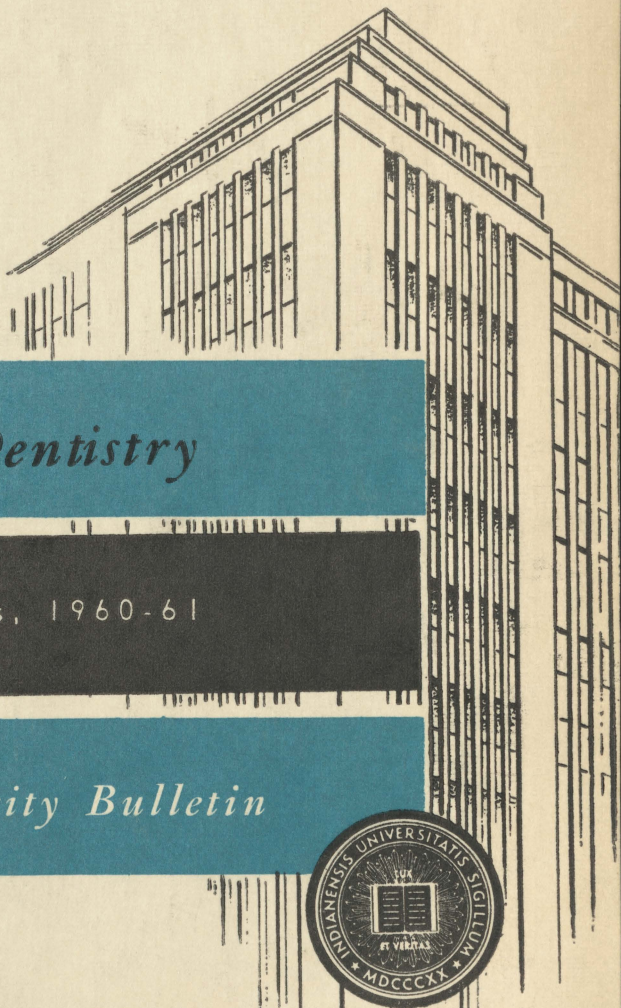


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School of Dentistry

Announcements, 1960-61

Indiana University Bulletin



Calendar, 1960-61

First Semester, 1960-61

September 13	Monday	Registration begins open
September 14	Tuesday	Classes begin
September 15	Friday, September	Second semester first classes will begin
September 17	Wednesday, 12 noon	Registration begins (classes closed during recess)
September 20	Monday, 8 a.m.	Classes begin (open house)
September 21	Tuesday, 8 a.m.	Classes begin (open house)
September 22	Wednesday, 8 a.m.	Classes begin (open house)
September 23	Thursday	Classes begin (open house)
September 24	Friday	Classes begin (open house)
September 25	Saturday	Classes begin (open house)
September 26	Sunday	Classes begin (open house)
September 27	Monday	Classes begin (open house)
September 28	Tuesday	Classes begin (open house)
September 29	Wednesday	Classes begin (open house)
September 30	Thursday	Classes begin (open house)

Bulletin

of the

School of Dentistry

Indiana University Medical Center
Indianapolis, Indiana

Second Semester, 1960-61

Indiana University
Bloomington, Indiana

INDIANA UNIVERSITY BULLETIN

Published as a semi-annual bulletin by the Indiana University Office of Public Relations, Indianapolis, Indiana. The bulletin is published twice a year, in January and July. The January issue contains information about the University and its activities for the coming year. The July issue contains information about the University and its activities for the past year. The bulletin is published by the Indiana University Office of Public Relations, Indianapolis, Indiana. The bulletin is published twice a year, in January and July. The January issue contains information about the University and its activities for the coming year. The July issue contains information about the University and its activities for the past year. The bulletin is published by the Indiana University Office of Public Relations, Indianapolis, Indiana.

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Calendar, 1960-61

Medical Center

First Semester, 1960-61

September 19.....	Monday.....	Registration (clinics open)
September 20.....	Tuesday.....	Classes begin
October 7-8.....	Friday, Saturday.....	Dental Alumni days (classes will meet)
November 23.....	Wednesday, 12 noon.....	Thanksgiving recess begins (clinics closed during recess)
November 28.....	Monday, 8 a.m.....	Thanksgiving recess ends
December 22.....	Thursday, 5 p.m.....	Christmas recess begins (clinics closed during recess)
January 4.....	Wednesday, 8 a.m.....	Christmas recess ends
January 16.....	Monday.....	Final examinations begin
January 21.....	Saturday.....	First semester ends

Second Semester, 1960-61

January 30.....	Monday.....	Classes begin (pre-registration, Jan. 16-20)
March 30.....	Thursday, 5 p.m.....	Spring recess begins (clinics closed during recess)
April 5.....	Wednesday, 8 a.m.....	Spring recess ends
May 22.....	Monday.....	Final examinations begin
May 27.....	Saturday.....	Second semester ends
June 5.....	Monday.....	Commencement

Bloomington Campus

First Semester, 1960-61

September 12.....	Monday, 8 a.m.....	New student meeting—Junior Division
September 13.....	Tuesday, 9 a.m.....	New student meeting—transfer and graduate
September 13-15.....	Tuesday through Thursday.....	Counseling
September 16-17.....	Friday, Saturday.....	Registration
September 19.....	Monday, 7:30 a.m.....	Classes begin
November 4.....	Friday, 5 p.m.....	Mid-term reports due
November 23.....	Wednesday, 5:20 p.m.....	Thanksgiving recess begins
November 28.....	Monday, 7:30 a.m.....	Thanksgiving recess ends
December 22.....	Thursday, 5:20 p.m.....	Christmas recess begins
January 4.....	Wednesday, 7:30 a.m.....	Christmas recess ends
January 13.....	Friday, 5:20 p.m.....	Classes end
January 14.....	Saturday, 7:30 a.m.....	Examinations begin
January 21.....	Saturday, 5:20 p.m.....	Examinations end

Second Semester, 1960-61

January 24.....	Tuesday.....	New student meetings
January 25-26.....	Wednesday, Thursday.....	Counseling
January 27-28.....	Friday, Saturday.....	Registration
January 30.....	Monday, 7:30 a.m.....	Classes begin
March 17.....	Friday, 5 p.m.....	Mid-term reports due
March 29.....	Wednesday, 5:20 p.m.....	Spring recess begins
April 6.....	Thursday, 7:30 a.m.....	Spring recess ends
May 3.....	Wednesday.....	Founders' Day*
May 12.....	Friday.....	Senior Class Day†
May 19.....	Friday, 5:20 p.m.....	Classes end
May 20.....	Saturday, 7:30 a.m.....	Examinations begin
May 27.....	Saturday, 5:20 p.m.....	Examinations end
May 30.....	Tuesday.....	Memorial Day holiday
June 5.....	Monday, 10 a.m.....	Commencement

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

† Seniors excused from classes beginning at 12:30 p.m.

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Officers, Faculty, and Staff, 1959-60

ADMINISTRATIVE OFFICERS*

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

RALPH L. COLLINS, 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 for Graduate Development, and Dean of the Graduate School.

SAMUEL EDWARD BRADEN, Ph.D., Vice-President, and Dean for Undergraduate Development.

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.

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.

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

JAMES WILLIAM ADAMS, Chairman, and Professor of Orthodontia.
B.S., Transylvania College, 1931; D.D.S., Ohio State University, 1936; M.S., University of Illinois, 1939.

WARREN ANDREW, Chairman, and Professor of Anatomy.
A.B., Carleton College, 1932; M.S., Brown University, 1933; Ph.D., University of Illinois, 1936; M.D., Baylor University, 1943.

LEWIS RUSH BAILEY, Acting Chairman, and Professor of Prosthetic Dentistry.
D.D.S., Northwestern University, 1934.

DONALD EDWIN BOWMAN, Chairman, and Professor of Biochemistry.
A.B., Western Reserve University, 1933; A.M., 1935; Ph.D., 1937.

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, Division of Endodontia, and Professor of Operative Dentistry.
A.B., Butler University, 1931; D.D.S., Indiana University, 1931; M.S.D., 1958.

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

* Administrative officers as of July 1, 1960.

- 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.
- RALPH EARL McDONALD**, Chairman, and Professor of Pedodontia.
B.S., Indiana University, 1942; D.D.S., 1944; M.S., 1951.
- 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.
- RALPH WILBUR PHILLIPS**, Chairman, and Professor of Dental Materials.
A.B., Indiana University, 1940; M.S., 1955.
- EWALD ERDMAN SELKURT**, Chairman, and Professor of Physiology.
A.B., University of Wisconsin, 1937; A.M., 1939; Ph.D., 1941.
- WILLIAM GENE SHAFER**, Chairman, and Professor of Oral Pathology.
B.S., University of Toledo, 1947; D.D.S., Ohio State University, 1947; M.S., University of Rochester, 1949.
- 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.
- VERGIL KENNETH STOELTING**, Chairman, and Professor of Anaesthesiology.
B.S., Indiana University, 1936; M.D., 1936.
- GRANT VAN HUYSSEN**, 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.
- MORRIS MEYER STONER**, Clinical Professor of Orthodontia.
D.D.S., Indiana University, 1942; M.S., 1947.
- 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.
- JOSEPH CHARLES MUHLER**, Research Professor of Basic Sciences.
B.S., Indiana University, 1947; D.D.S., 1948; Ph.D., 1952.
- 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.
- JAMES ARNOLD GREEN**, Associate Professor of Anatomy (School of Medicine).
A.B., University of Illinois, 1941; Ph.D., 1950.

- WARD WILFRED MOORE, Associate Professor of Physiology (School of Medicine).
A.B., University of Illinois, 1948; M.S., 1951; Ph.D., 1952.
- SIDNEY OCHS, Associate Professor of Physiology (School of Medicine).
Ph.D., University of Chicago, 1952.
- RONALD STANLEY PING, Acting Chairman, and Associate Professor of Oral Surgery.
D.D.S., Indiana University, 1941.
- JOHN ROBERT PINION, Associate Professor of Crown and Bridge.
D.D.S., University of Tennessee, 1958.
- HAROLD RAIDT, Associate Professor of Microbiology.
B.S., University of Kentucky, 1933; M.S., 1934.
- PAUL EDWARD STARKEY, Associate Professor of Pedodontia.
D.D.S., Indiana University, 1943.
- 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.
- RICHARD CURTIS WEBSTER, Associate Professor of Anatomy (School of Medicine).
A.B., University of Louisville, 1938; M.S., 1940; Ph.D., University of Kansas, 1949.
- AARON LOUIS ANDREWS, Director of the Division of Allied Health Sciences, and Assistant Professor of Health Education.
A.B., University of Louisville, 1942; M.S., Indiana University, 1948; H.S.Dir., 1949; M.P.H., University of North Carolina, 1957.
- DAVID BIXLER, Assistant Professor of Basic Sciences.
A.B., Indiana University, 1950; Ph.D., 1955; D.D.S., 1959.
- ROBERT PRESTON BOESINGER, Assistant Professor of Operative Dentistry.
D.D.S., Indiana University, 1935.
- ROBERT WINSLOW BULLARD, Assistant Professor of Physiology (School of Medicine).
B.S., Springfield College, 1951; A.M., University of Massachusetts, 1953; Ph.D., University of Rochester, 1956.
- CHARLES JUSTIN BURSTONE, Assistant Professor of Orthodontia.
D.D.S., Washington University, 1950; M.S., Indiana University, 1955.
- WILLIAM CLARENCE CLARK, Assistant Professor of 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; M.S., 1958.
- JULIUS JAY FRIEDMAN, Assistant Professor of Physiology (School of Medicine).
B.S., Tulane University of Louisiana, 1949; M.S., 1951; Ph.D., 1953.
- 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.
- CHARLES EDWARD HUTTON**, Assistant Professor of Oral Surgery.
D.D.S., Indiana University, 1952.
- RICHARD EUGENE JENNINGS**, Assistant Professor of Pedodontia.
D.D.S., Indiana University, 1945; M.S.D., 1956.
- PAUL CHRISTIAN JOHNSON**, Assistant Professor of Physiology (School of Medicine).
B.S., University of Michigan, 1951; A.M., 1953; Ph.D., 1956.
- 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.
- LEON KENNETH KNOEBEL**, Assistant Professor of Physiology (School of Medicine).
B.S., Pennsylvania State University, 1950; M.S., 1952; Ph.D., University of Rochester, 1955.
- ROBERT JOSEPH MEYERS**, Assistant Professor of Operative Dentistry.
D.D.S., Indiana University, 1928.
- ROBERT CARL MURPHY**, Assistant Professor of Anatomy (School of Medicine).
B.S., Geneva College, 1949; M.S., University of Wisconsin, 1952; Ph.D., 1955.
- SAMUEL PATTERSON**, Assistant Professor of Operative Dentistry.
D.D.S., Indiana University, 1940.
- CHARLES H. REDISH**, Assistant Professor of Oral Surgery.
D.D.S., Indiana University, 1951.
- WILLIAM EDWARD ROGERS, JR.**, Assistant Professor of Basic Sciences.
B.S., Massachusetts Institute of Technology, 1950; Ph.D., Indiana University, 1957.
- CARL FREDERICK ROTHE**, Assistant Professor of Physiology (School of Medicine).
B.Sc., Ohio State University, 1951; M.Sc., 1952; Ph.D., 1955.
- ROBERT HOWARD SHELLHAMER**, Assistant Professor of Anatomy (School of Medicine).
A.B., Temple University, 1947; A.M., Ohio State University, 1948; Ph.D., 1952.
- WILLARD CONKLING STAMPER**, Director of Clinics, and Assistant Professor of Pedodontia.
D.D.S., Indiana University, 1937.
- SAMUEL MILES STANDISH**, Assistant Professor of Oral Pathology.
D.D.S., Indiana University, 1945; M.S., 1956.
- MARJORIE LOUISE SWARTZ**, Assistant Professor of Dental Materials.
B.S., Butler University, 1946.
- 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.
B.S., University of Michigan, 1951; Dental Hygiene Certificate, 1951; R.D.H., 1951.
- DAVID THOMAS AMOS**, Instructor in Basic Sciences.
B.S. in Dent., Indiana University, 1952; D.D.S., 1955.

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 Prosthetic Dentistry.

B.S., Butler University, 1950; D.D.S., Indiana University, 1956.

ERVINE BYRD BARR, Instructor in Periodontia.

D.D.S., Indiana University, 1947.

RALPH EMERSON BEATTY, Instructor in Oral Diagnosis.

D.D.S., Indiana University, 1958.

THOMAS HAROLD BEAVERS, Instructor in Oral Diagnosis.

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.

HAROLD EUGENE BREWER, Instructor in Oral Diagnosis.

B.S. in Dent., Indiana University, 1953; Ph.D., 1958; D.D.S., 1959.

ROBERT RAYFORD BUCKLEY, Instructor in Pedodontia.

B.S., University of Akron, 1949; M.S. in Ed., Butler University, 1951; D.D.S., Indiana University, 1957.

DELMAR WADE BYERLY, Instructor in Crown and Bridge.

D.D.S., Indiana University, 1958.

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.

LAFORREST DEAN GARNER, Instructor in Orthodontia.

D.D.S., Indiana University, 1957.

HOMER WILLIAM GILMORE, Instructor in Dental Materials.

D.D.S., Indiana University, 1958.

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.

NILES MCKENDRA HANSEN, JR., Instructor in Periodontia.

B.S., Creighton University, 1953; D.D.S., 1957.

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.
- HARRY R. KERR, JR., Instructor in Oral Surgery.
A.B., Indiana University, 1950; D.D.S., 1954.
- ARTHUR IRVING KLEIN, Instructor in Pedodontia.
D.D.S., University of Pennsylvania, 1947; M.S.D., Indiana University, 1958.
- NORMAN STANLEY KLEIN, Instructor in Crown and Bridge.
A.B., Indiana University, 1954; D.D.S., 1957.
- CARL ROBERT KOHLMANN, Instructor in Operative Dentistry.
D.D.S., Indiana University, 1948.
- DAVID G. LEHMAN, Instructor in Orthodontia.
B.S., Indiana University, 1953; D.D.S., 1953; M.S.D., 1958.
- DWAIN R. LOVE, Instructor in Crown and Bridge (resigned January 31, 1960).
D.D.S., Indiana University, 1956.
- 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.
- JOHN ROBERT MINK, Instructor in Pedodontia.
A.B., Indiana University, 1951; D.D.S., 1956.
- JAMES MICHAEL MORAN, Instructor in Pedodontia.
B.S. in Dent., Indiana University, 1958; D.D.S., 1958.
- ESTELL EDWARD MORRIS, Instructor in Oral Surgery.
A.B., Indiana University, 1949; D.D.S., 1953.
- RICHARD DAVIESS NORMAN, Instructor in Dental Materials.
A.B., Franklin College of Indiana, 1950; D.D.S., Indiana University, 1958.
- MARCIA KAYE PALLARDY, Instructor in Dental Hygiene.
R.H.D., Temple University, 1956; Dental Hygiene Certificate, 1956.
- GEORGE EDWARD PEFFLEY, Instructor in Basic Sciences.
B.S., Ball State Teachers College, 1953; D.D.S., Indiana University, 1957.
- BEN BOLLING PENCE, Instructor in Orthodontia.
A.B., University of Louisville, 1951; D.M.D., 1955.
- LYDD 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.
- BASIL WILBUR REMLEY, Instructor in Oral Surgery.
A.B., Franklin College of Indiana, 1949; D.D.S., Indiana University, 1953.

- 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.
- GLEN OSCAR SAGRAVES**, Instructor in Crown and Bridge.
B.S., Indiana State Teachers College, 1950; D.D.S., Indiana University, 1958.
- RICHARD SCHNELL**, Instructor in Dental Materials.
A.B., Washington University, 1941; D.D.S., St. Louis University, 1946; M.S., Indiana University, 1958.
- JORDAN LEE SCULL**, Instructor in Crown and Bridge.
B.S. in Dent., Indiana University, 1952; D.D.S., 1955.
- (Mrs.) **ANN BUCHE SPEDDING**, Graduate Assistant in Dental Hygiene.
Dental Hygiene Certificate, Indiana University, 1958; R.D.H., 1958.
- ROBERT EUGENE TARPLEE**, Instructor in Oral Diagnosis.
D.D.S., Indiana University, 1952.
- JACKSON DEAN TODD**, Instructor in Oral Surgery.
A.B., Indiana University, 1951; D.D.S., 1955.
- ROBERT OSCAR YOHO**, Instructor in Public Health.
A.B., Indiana University, 1934; A.M., 1939; H.S.D., 1957.
- LEHMAN DAVID ADAMS, JR.**, Clinical Instructor in Oral Surgery.
B.S., Wilberforce University, 1945; D.D.S., Indiana University, 1949.
- 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.
- GALE EUGENE COONS**, Lecturer in Health Education.
B.S. in Public Health, Indiana University, 1951; M.P.H., University of Michigan, 1954.
- MARGARET DUNHAM**, Lecturer in Nutrition.
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 CARR DINWIDDIE**, Consultant in Pedodontia.
A.B., Butler University, 1937; M.S., 1954.
- RICHARD HARVEY ERNSTING**, Consultant in Crown and Bridge.
D.D.S., Indiana University, 1952.
- WILLIAM CONRAD GILLIG**, Consultant to the Riley Dental Clinic.
B.S., Xavier University (Ohio), 1954; D.D.S., Indiana University, 1958.
- 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.
- 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.
- ARTHUR W. RADIKE**, Consultant in Preventive Dentistry.
D.D.S., Ohio State University, 1947.
- DONALD EDWARD ARENS**, Graduate Assistant in Endodontia.
B.S. in Dent., Indiana University, 1956; D.D.S., 1959.
- RICHARD LEE BERGER**, Graduate Assistant in Crown and Bridge.
D.D.S., Indiana University, 1957.
- GUTHRIE EVANS CARR**, Graduate Assistant in Pedodontia.
B.S., Purdue University, 1950; D.D.S., Indiana University, 1954.
- LLOYD A. DELMAN**, Graduate Assistant in Oral Diagnosis.
A.B., Indiana University, 1953; D.D.S., 1957.
- ROBERT EUGENE FISHER**, Graduate Assistant in Operative Dentistry.
D.D.S., Indiana University, 1958.
- JERRY HARMON LEER**, Graduate Assistant in Operative Dentistry.
D.D.S., Indiana University, 1958.
- DONALD GENE MOON**, Graduate Assistant in Biochemistry.
D.D.S., Indiana University, 1959.
- RAYMOND ROGER PRICE**, Graduate Assistant in Dental Materials.
B.S., Purdue University, 1942; D.D.S., Indiana University, 1951.
- ROBERT PAUL SWIETERMAN**, Graduate Assistant in Periodontia.
B.S., University of Louisville, 1951; D.M.D., 1958.
- ROBERT CLARENCE WALLS**, Graduate Assistant in Crown and Bridge.
D.D.S., Indiana University, 1959.

OFFICIAL ASSISTANTS

- LYNN BINKLEY**, Chief Accountant.
- (Mrs.) **CLEONA HARVEY**, Administrative Assistant, and Recorder.
- PAUL D. JACKSON**, B.S.C.E., Superintendent of Buildings and Grounds.
- ROBERT MARTIN TIRMENSTEIN**, B.S. in Bus., Personnel Director.
- GERTRUDE KATZENBERGER**, Office Manager, and Cashier, Main Clinic.
- JAMES ROBERT NEEL**, B.S., Purchasing Agent.
- (Mrs.) **VIRGINIA BEASON**, Dental Instrument Clerk.
- RICHARD CLIFTON SCOTT**, Division of Dental Art.
- MARC G. WAGGENER**, Editor, News Bureau.
- (Mrs.) **MABEL WALKER**, Dental Librarian.

FACULTY COMMITTEES

- ADMINISTRATION—Dean Hine (Chairman), Drs. Adams, Bailey, Boyd, Burstone, Miss Fisk, Drs. Gilmore, Healey, Hughes, Johnston, McDonald, Mitchell, Muhler, Professor Phillips, Drs. Ping, Shafer, Stamper, Swenson, Van Huysen, Wilson, Mrs. Harvey, Mrs. Chilton (Secretary).
- ADMISSIONS—Dean Hine (Chairman), Drs. Bailey, Boyd, McDonald, Professor Phillips, Mrs. Harvey (Secretary).
- ADVISORY—Dr. McDonald (Chairman), Drs. Johnston, Boyd, Professor Phillips, Mrs. Harvey (Secretary).
- APTITUDE TESTING—Dr. McDonald (Chairman), Drs. Cunningham, Hohlt, Johnston, Misselhorn, Mitchell, Schnell.
- CO-OPERATION WITH ALUMNI—Dr. Healey (Chairman), Drs. Gilmore, Gregory, Hohlt, Professor Phillips (Editor, *Bulletin*).
- EXHIBITS—Dr. Gilmore (Chairman), Drs. Boyd, McDonald, Mitchell, Professor Phillips, Drs. Van Huysen, White, Mr. Scott.
- GRADUATE INSTRUCTION—Dean Hine (Chairman), Dr. Muhler (Secretary), Drs. Adams, Burstone, Dworkin, Healey, Professor Phillips, Drs. McDonald, Mitchell, Rogers, Shafer, Van Huysen.
- INSTRUMENTS—Dr. Bailey (Chairman), Drs. Boyd, Johnston, Stamper, Mrs. Beason (Instrument Clerk).
- LIBRARY—Dean Hine, Dr. Van Huysen (Chairman), Drs. Dykema, Healey, McDonald, Shafer, Mrs. Walker (Librarian).
- LOANS—Professor Phillips (Chairman), Drs. Hohlt, Mitchell, Hine ex officio.
- POSTGRADUATE INSTRUCTION—Professor Phillips (Chairman), Dr. Gilmore (Secretary), Drs. Cunningham, Johnston, Ping, Starkey.
- PROMOTIONS—Includes all instructors of each class.
- REFRESHER COURSES AND SYMPOSIA—Dr. Johnston (Chairman), Drs. Bailey, Gregory, McDonald, Mitchell, Pinion.
- RESEARCH—Professor Phillips (Chairman), Drs. Muhler, Shafer, Mitchell.
- STUDENT AFFAIRS—Dr. Gilmore (Chairman), Drs. Cunningham, Derry, Mitchell, Hohlt, 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.

The curriculum for the School of Dentistry is presented on the Medical Center campus in Indianapolis. Students will gain their educational experiences, not only in the Dental School Building, but also in the Medical Science 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 that 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 pedodontist 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 the academic year 1958-59, the School of Dentistry had a total registration of approximately 400.

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 (including the Kiwanis Wing), the Rotary Building, the Clinical Building, the William H. Coleman Hospital for Women, the Student Union and Food Service Building, and the new Medical Science Building. Located adjacent to the Medical Center are Marion County General Hospital, Veterans Hospital, and the LaRue D. Carter Memorial Hospital. Such a situation is ideal for 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, located in the west wing on the first floor of the School of Dentistry Building, contains almost 50,000 items, of which 13,000 are texts and bound periodicals embracing all the fields of dentistry and the

essential fields in the allied sciences, including medicine. The library currently receives 400 periodicals covering these subjects. Numerous gifts of books and periodicals are received 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. Memberships are maintained in the American Library Association, the Indiana Library Association, the Medical Library Association, and the Special Libraries Association. The library is open from 8 a.m. to 8 p.m., Monday and Thursday, and from 8 a.m. to 5 p.m., Tuesday, Wednesday, and Friday. The staff, which consists of one full-time professional librarian, two full-time assistants, and three part-time assistants, functions under the direction of the University Library on the Bloomington campus and a committee composed of the Dean and five additional 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, Myers Hall, regarding technical details, or ask her to arrange an appointment with Dean Hine. Dr. Joseph C. Muhler also visits the Bloomington campus weekly to interview predental students.

Living Expenses at Bloomington. Room and meals in the Halls of Residence, 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 or at the Indiana Memorial Union.

Living Expenses at Indianapolis and Living Facilities on the Medical Center Campus. Students will find living expenses comparatively reasonable in Indianapolis.

The University offers living quarters for married students, residents, and interns in the Student Union. The Warthin Apartments also provide 105 accommodations for married students and staff, and the dormitory addition to the Union furnishes housing for 198 additional single students. A temporary housing project provides 48 apartments, and rooms for 71 single men students.

Rooms in private homes throughout the city are available for single men or women, and housing for married students, interns, or residents is also available throughout the city.

Payment for room in the University dormitories is made by the month.

Dormitory rates are subject to change by action of the Board of Trustees.

The average gross amount of money spent by dental students is largely regulated by the spending habits of the individual. A con-

siderable 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.

The University co-operates with several banks which have established finance plans for students. These plans generally provide that the bank will advance the major portion of a student's expenses each year, with repayment being made to the bank in equal monthly installments over a more extended period. More complete information may be obtained by contacting the Chief Accountant on the Medical Center campus.

Fees. Predental: All predental students registered in the Junior Division or in 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.

Dental: Beginning with the applicants for the 1960 Class, an application processing fee of \$5 is charged. The completed application form must be accompanied by a check or money order for \$5 made out to Indiana University. This fee is paid by each applicant but once, is not refundable, and is not applied to other fees.

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. This advance payment is not returnable. The fee for a D.D.S. degree, 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.

See page 54 regarding fees and expenses for dental hygienists.

Fees are subject to change by action of the Board of Trustees.

Refunds: 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.

Breakage, etc.: 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.

General Expenses. Books for the four years will cost approximately as follows: freshman year, \$85; sophomore year, \$110; junior year, \$58; senior year, \$17.

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, \$225; sophomore year, \$300; junior year, \$200; senior year, \$35. The instruments are purchased from the School of Dentistry.

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 Robert H. Derry, president; Donald M. Cunningham, president-elect; and David F. Mitchell, secretary. 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 who rank in the upper one third of the class.

Fraternities. Four national Greek letter dental fraternities for undergraduates have chapters in the 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, a chapter of student members of the American Dental Association has been organized; the S.A.D.A. 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. In 1959-60, Dr. Fredrick A. Hohlt was president, and Dr. H. William Gilmore was 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.

Chaplain. The Medical Center Chaplain's Office is located in one of the cottages opposite the Dental School Building. Personal appointments may be scheduled at any time. The Resident Chaplain is Protestant; a Chaplain is available for students of each faith.

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 for the applicant 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 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. A minimum of sixty hours of academic work is required for admission to the School of Dentistry. At Indiana University, and at many other universities, two hours of physical education and four hours of military training are required. Since these courses are not dental school requirements, however, they cannot be counted in the sixty hours of academic work required. Following is an outline of a program for predental courses:

FIRST YEAR

	Hours		Hours
English Composition	2	English Composition	2
Zoology (Animal Biology)	5	Zoology (Animal Biology)	5
Inorganic Chemistry	5	Inorganic Chemistry	5
*Electives	5-6	*Electives	5-6
	<u>17-18</u>		<u>17-18</u>

SECOND YEAR

English Composition	2	Physics	5
Organic Chemistry	5	†Electives	11
Physics	5		<u>16</u>
†Electives	4		
	<u>16</u>		

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. Following is the outline of the currently recommended program for predental students at Indiana University on the Bloomington campus:

FIRST YEAR

	Hours		Hours
English W101	2	English W102	2
Zoology Z103	5	Zoology Z215	5
Chemistry C105	5	§Mathematics M113	2
†Mathematics M107	3	Chemistry C106	5
Military Training	1	Elective	2
Physical Education	1	Military Training	1
	<u>17</u>	Physical Education	1
			<u>18</u>

SECOND YEAR

English W103	2	Physics P202	5
Chemistry C341	5	Electives	10
Physics P201	5	Military Training	1
Electives	3		<u>16</u>
Military Training	1		
	<u>16</u>		

* These electives must include prerequisites which may be required by the liberal arts college for organic chemistry and physics.

† This should include military training or physical education if required by the liberal arts college.

‡ Mathematics M107 is prerequisite to Chemistry C105 or may be taken concurrently. Students who have had one year of high school algebra take M105; those with one and a half years of high school algebra take M107; those with two years of high school algebra should not take algebra in college.

§ Mathematics M113 or high school trigonometry is prerequisite to Physics P201. Students who have had trigonometry in high school should not repeat it in college.

The following courses are recommended as desirable electives for students attending Indiana University in Bloomington:

1. To take during first two years: Introductory Psychology (Psychology P101), Introductory Laboratory Psychology I-II (Psychology P111-P112); 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 (Anatomy and Physiology P304).

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

Dental Course. Students 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 to obtain the B.S. degree and who will enter the School of Dentistry after six semesters (ninety-two semester hours) in the College of Arts and Sciences.

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

FIRST YEAR

	Hours		Hours
*Mathematics M107	3	†Mathematics M113	2
†English W101	2	†English W102	2
Zoology Z103	5	Zoology Z215	5
Chemistry C105	5	Chemistry C106	5
Military Training	1	Military Training	1
Physical Education	1	Physical Education	1
	<u>17</u>		<u>16</u>

SECOND YEAR

†English W103	2	Physics P202	5
Chemistry C341	5	†Group IV A	3
Physics P201	5	†Psychology P101	3
†Group IV A	3	Classics C209	2
Military Training	1	Electives	2
	<u>16</u>	Military Training	1
			<u>16</u>

THIRD YEAR

†Foreign Language	5	†Foreign Language	5
†Group IV B	3	†Group IV B	3
Electives	7	Electives	7
	<u>15</u>		<u>15</u>

* See footnote for Mathematics M107 on preceding page.

† See footnote for Mathematics M113 on preceding page.

‡ These courses are specifically required for the degree B.S. in Dentistry.

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: G210 and G313
 Government: G103-G104
 History: H103-H104, H105-H106, H305-H306-H307, H308-H309
 Sociology: S161, and S162 or S163, and S301

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-R306, or R354, R355, and R365
 Spanish: Third- or fourth-year courses of a literary character
 Speech and Theatre: S247-S248

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

Rules for Attendance and Promotion. 1. In any course, the minimum attendance for which credit will be given, or which will admit a student to final examination, is 85 per cent of the time

scheduled for instruction in that course. The margin of 15 per cent absence is provided to accommodate only unavoidable absence due to illness, death of relatives, delayed registration, or other causes, and it is not contemplated that this concession shall apply other than to exceptional cases.

2. In case of serious personal illness, properly attested, whereby a student's attendance falls to not below 75 per cent during the school year, the student may be permitted to make up 10 per cent of the required 85 per cent minimum by systematic work during vacation under competent instruction at his own expense. Such work must be done at the School of Dentistry and 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 during the time allowed, the Incomplete will be changed to F by the dean of the school in which he is cur-

* None of these regulations apply to those 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.

rently registered. 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 and receive a grade of W on University records.

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 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, they should 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 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, 1960-61

* 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: Freshman I-II. (5-5 cr.)
Dr. ANDREW 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: Freshman. (4 cr.)
Dr. ANDREW and Staff.

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. (2-3 cr.)
Dr. MISSELHORN and Staff.

Morphological study of the teeth: their arrangement and occlusion.

D603. Histology and Embryology, Oral: Sophomore. (2 cr.)
Dr. VAN HUYSSEN.

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 HUYSSEN.

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.

Basic Technics

D521-D522. Basic Technics: Freshman I-II. (4-4 cr.)
Drs. WILSON, AMOS, FISHER.

This course is designed to acquaint the student with materials and techniques used in subsequent courses of study, and to serve as an introduction to the fundamental principles of clinical dentistry.

Biochemistry

B505. Biochemistry for Dental Students: Freshman. (5 cr.)
Drs. MUHLER, ROGERS, MOON.

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

Drs. JOHNSTON, BORKOWSKI, DYKEMA, RIFFLE, WALLS, 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 subocclusal 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, DYKEMA, KEMPER, KLEIN, and Staff.

This course includes lectures, laboratory studies, and clinical practice on diagnosis, pontic design and construction; indications and construction of porcelain and acrylic veneers, the plastic-faced gold crown, and the anterior-MacBoyle retainer; a 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, BOGAN, BORKOWSKI, CUNNINGHAM, PINION.

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, BORKOWSKI, CUNNINGHAM, PINION.

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

Staff.

Microbiology as it applies to problems of the oral cavity is emphasized. The importance of microbiology to the practicing dentist is considered, as well as methods and procedures of sterilization and asepsis.

*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. (2 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 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***D606. Endodontics: Sophomore. (2 cr.) Drs. HEALEY, PATTERSON.**

A correlation of the basic endodontic clinical procedures and the related biologic principles is comprehensively presented in this course.

**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. ($\frac{1}{2}$ 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. ($1\frac{1}{2}$ - $1\frac{1}{2}$ cr.)****Drs. MITCHELL, MISSELHORN, and Staff.**

Students are given lectures and clinical practice in oral examination, history taking, and co-ordination of symptomatology. Emphasis is placed upon interpreting 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. ($\frac{1}{2}$ - $\frac{1}{2}$ cr.)**Drs. MITCHELL, MISSELHORN, and Staff.**

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. ($1\frac{1}{2}$ - $1\frac{1}{2}$ 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, and diseases of the oral cavity and adjacent tissues. Includes clinical demonstrations and supervision of operations of routine and minor oral surgery cases.

D818. Anesthesiology: Senior. (1 cr.) Dr. STOELTING and Staff.

Indications, contraindications, techniques for use, and the principles of various general anesthetic agents will be discussed in this course.

D831-D832. Oral Surgery: Senior I-II. ($1\frac{1}{2}$ - $1\frac{1}{2}$ 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.)
Dr. 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.

D713. Orthodontia: Junior. (1½ cr.) Dr. 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 performs technical exercises used in the prevention and correction of malocclusions.

Pathology

General 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 dentition; 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. ($1\frac{1}{2}$ - $1\frac{1}{2}$ 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. ($\frac{1}{2}$ - $\frac{1}{2}$ 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

Pharmacology F650. Pharmacology (Dental). (60 hrs.) (2 cr.)

Mr. HULPIEU, Mr. CLARK, Mr. HUGHES.

Lectures, quizzes, laboratory. The site and mechanism of typical drugs are discussed. Emphasis is placed on the drugs used most frequently in dentistry. Practice in prescription writing is given. Mechanisms of drug action are illustrated in the laboratory and by demonstration.

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 medica.

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 F509. Human Physiology: Freshman. (6 cr.)

Dr. SELKURT and Staff.

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

Practice Management

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

Lectures include consideration of dentistry in prehistoric, ancient, mediaeval, and modern periods with discussions of the development of modern phases of practice. Development of dental education is traced, and the dental code of ethics explained.

D804. Jurisprudence: Senior. (1 cr.)

Mr. ARMSTRONG.

Lectures and study of cases on elementary law, with special reference to contracts and torts as applied to dental practice, and on the professional relation, its duties and liabilities, malpractice, and statutes governing dental practice.

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

Dr. L. W. 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.)**

Dr. DERRY.

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

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

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.

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

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.)**

Drs. MITCHELL, CARR, MATLOCK, and NORMAN.

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.)

Drs. MITCHELL, CARR, MATLOCK, and NORMAN.

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 Marion County General Hospital, and in the Riley and Long Hospitals, as well as in the School of Dentistry.

*Summer Session***Clinical Dental Procedures. (6 cr.)**

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

Courses	First Semester		Second Semester		Total Credit Hours	Total Clock Hours
	Lecture	Laboratory or Clinic	Lecture	Laboratory or Clinic		
Histology	2	2	0	0	4	90
Oral Anatomy	1	1	1	2	5	142½
Physiology	0	0	3	3	6	135
Human Anatomy	2	3	2	3	10	240
Biochemistry	3	2	0	0	5	105
Dental Seminar	0	0	1	0	1	15
History of Dentistry	1	0	0	0	1	15
Basic Technics	2	2	2	2	8	210
Total					40	952½

SOPHOMORE YEAR

Prosthetic Dentistry	1	2	1	1	5	120
Operative Dentistry	1	3	1	2	7	180
Oral Histology and Embryology	1	1	0	0	2	45
Crown and Bridge	0	0	2	2	4	90
Microbiology	0	0	2	2	4	90
General Pathology	2	2	0	0	4	90
Dental Materials	2	0	1	0	3	45
Pharmacology	1	1	0	0	2	45
Fundamentals of Occlusion	1	0	1	0	2	30
Oral Pathology	0	0	2	1	3	60
Partial Denture	2	2	1	1	6	135
Endodontia	0	0	1	1	2	45
Total					44	975

JUNIOR YEAR

Operative Dentistry	1	3	1	2	7	255
Prosthetic Dentistry	1	3	0	1	3	105
Crown and Bridge	1	2	1	3	7	195
Dental Therapeutics	0	0	1	0	1	15
Radiodontia	2	½	0	0	2½	52½
Orthodontia	0	0	1	½	1½	37½
Oral Diagnosis	1	½	1	½	3	75
Periodontia	1	½	1	½	3	75
Oral Surgery	1	½	1	½	3	75
Principles of Surgery	0	0	1	0	1	15
Internal Medicine	1	0	1	0	2	30
Pedodontia	0	0	1	0	1	15
Advanced Pedodontic Technique	0	0	0	½	½	15
Nutrition	2	0	0	0	2	30
Partial Denture	1	0	1	1	3	75
*Civil Defense	1	0	0	0	1	15
Total					41	1,080

SENIOR YEAR

Applied Anatomy	1	0	0	0	1	15
Operative Dentistry	1	3	0	3	7	285
Advanced Operative Technique	0	0	0	½	½	15
Pedodontia	1	1	0	1	3	105
Crown and Bridge	1	3	1	3	8	300
Oral Surgery	1	½	1	½	3	75
Oral Diagnosis	0	½	0	½	1	45
Periodontia	0	½	0	½	1	45
Prosthetic Dentistry	1	2	1	2	6	210
Practice Management	0	0	1	0	1	15
Jurisprudence	0	0	1	0	1	15
Public Health	1	0	0	0	1	15
Preventive Dentistry	0	0	1	0	1	15
Radiodontia	0	0	0	½	½	22½
Senior Pathology Conference	0	0	1	0	1	15
Endodontia	0	0	0	½	½	22½
Partial Denture	0	1	0	1	2	90
Anesthesiology	0	0	1	0	1	15
*Civil Defense	1	0	0	0	1	15
Total					40½	1,335

This schedule is subject to change.

* This course is offered every other year.

The Graduate Program in Dentistry

Graduate Faculty: Dean and Professor HINE (Chairman); Professors ADAMS, HEALEY, HOPPER, McDONALD, MITCHELL, MUHLER (Secretary), PHILLIPS, SHAFER; Assistant Professors BIXLER, BURSTONE, DWORKIN, ROGERS, STANDISH; Consultant HOWELL.

Advisory Faculty: Professors BAILEY, BOYD, GREGORY, HUGHES, JOHNSTON, VAN HUYSSEN; Associate Professor 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 a minimum of thirty hours of course work, of which at least eighteen hours must be devoted to didactic work. Of this total of eighteen hours, no more than six may be in an advanced clinical practice investigation. A total of six hours must be in research.

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 is placed on nonclinical subjects. The Ph.D. degree is available in the fields of anatomy, physiology, microbiology, pharmacology, and biochemistry on the Medical Center 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, pedo-

dontia, crown and bridge prosthesis, denture prosthesis, radiology, operative dentistry, endodontia, orthodontia, oral medicine-oral diagnosis, periodontia, biochemistry, preventive dentistry, physiology, anatomy, and public health.

Admission. Prospective graduate 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. Each student must complete at least six credit hours of research. No additional credit will be given, however, if more than this number of hours is taken.

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 candidacy for the M.S.D. degree who fails to maintain 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. For the M.S.D., the student is required to submit to the secretary of the graduate dental program one unbound original copy of his thesis, and a carbon copy, bound in black with gold lettering, for the successful completion of his final examination. Those students receiving the M.S. must submit an original and a carbon copy, bound in black with gold lettering, and, in addition, an unbound carbon copy.

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 fee for an M.S.D. degree in the School of Dentistry is \$5, and is payable thirty days prior to graduation. The degree fee for an M.S. or Ph.D. degree conferred by the Graduate School is \$5.

Graduate Courses, 1960-61

General Pathology C603. General Pathology I. (1-5 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.

Pediatrics 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. ($\frac{1}{2}$ cr.; 1 cr. maximum.)

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. ($\frac{1}{2}$ cr.; 1 cr. maximum.)

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 present-day 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.

G918. Research: Oral Diagnosis-Oral Medicine. (Cr. arr.)**G919. Research: Prosthetics. (Cr. arr.)****G920. Research: Oral Pathology. (Cr. arr.)****G921. Research: Dental Materials. (Cr. arr.)****G922. Research: Pedodontia. (Cr. arr.)****G923. Research: Crown and Bridge Prosthetics. (Cr. arr.)****G924. Research: Radiology. (Cr. arr.)****G925. Research: Operative Dentistry. (Cr. arr.)**

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

G927. Research: 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 appliances; planning over-all treatment for partially edentulous mouths.

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

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

G940. Advanced Clinical Instruction in 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. (1-4 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.

G949 (J840). Microbial Physiology. (3 cr.)

This course will cover the chemical and physical nature of bacteria, their metabolic and physical properties, and the nature of their response and adaptation to their environment.

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 conditions.

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 is included, as well as the theory and basic information associated with the hydrocolloid and indirect casting technique, the airbrasive technique, and high-speed diamond and carbide instrumentation.

G954. Principles of Crystal Growth. (2 cr.)

Theories of crystal growth, types of crystallization, and the effects of impurities are considered. Emphasis is placed on the physical and chemical properties of crystalline solids in light of their atomic structure and with respect to their environment. Applications to medical and dental growths are discussed.

G955. Endocrinology. (1-3 cr.)

The course consists of one-half hour lectures and assigned student readings. Approximately two thirds of the course is devoted to general endocrinology and basic endocrine mechanisms. Emphasis is placed upon adrenal, pancreatic, thyroid, and parathyroid functions. The remainder of the course deals with oral and dental problems specifically associated with endocrine malfunction.

G956. Advanced Endodontics. (1-6 cr.)

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

G957. Analysis of Endodontic 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. Advanced 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. (4 cr.)

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

G968. Advanced Clinical Oral Diagnosis-Oral Medicine. (1-4 cr.)

Through oral diagnosis clinic experience, the usual and the unusual oral pathologic problems of patients are studied.

G969. Advanced Oral Diagnosis-Oral Medicine. (2 cr.)

Discussion and demonstration of the many oral diagnostic techniques available are correlated with clinical signs and symptoms of diseases involving the teeth, pulp, periodontium, and contiguous tissues and anatomical areas.

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 presented. 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. (1-4 cr.)

This course consists of a microscopical study of the tooth and periodontium. It will consider the response of these tissues to pathology, instrumentation, and filling materials used in operative, endodontic, and crown and bridge procedure. Animals will be used to illustrate the response of the tooth tissues to these procedures.

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	Advanced Oral Histology and Embryology	2
G903	Histologic Technique	1
G909	Recent Advances in Dentistry	1
G910	Seminar (2 semesters, 1 hour each)	2
G932	Research	Arr.
G990	Advanced Anatomy	1-3
G991	Advanced Anatomy of Head and Neck	1-3
Minor: 6 to 8 hours, credit arranged		

ELECTIVE COURSES

Gen. Path. C603	General Pathology I	1-4
G902	Advanced Oral Pathology	1-6
G904	Special Pathology of Neoplasms	3
G907	Oral Surgery Pathology Conference (2 semesters, ½ hour each)	1
G908	Radiologic Interpretation	1
G948	Advanced Radiology	1-3
G971	Intermediary Metabolism	3
G974	Advanced Nutrition	2

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.

REQUIRED COURSES

Major: Biochemistry		Hours
G909	Recent Advances in Dentistry	1
G910	Seminar (2 semesters, 1 hour each)	2
G929	Research	Arr.
G970	Advanced Biochemistry Laboratory	1-3
G971	Intermediary Metabolism	3
G972	Proteins and Nucleic Acids	2
G973	Vitamins, Mineral Metabolism, and Hormones	2
G974	Advanced Nutrition	2
Minor: 6 to 8 hours, credit arranged		

ELECTIVE COURSES

G959	Oral Microbiology	1-3
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

G901	Advanced Oral Histology and Embryology	2
G912	Specifications and Test Methods in Dental Materials	1-5
G913	Clinical Application of Dental Materials	1-4
G948	Advanced Radiology	1-3
G956	Advanced Endodontia	1-6
G967	Advanced Periodontia	4
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

Major: Dental Materials		Hours
G909	Recent Advances in Dentistry	1
G910	Seminar (2 semesters, 1 hour each)	2
G911	Theory of Dental Metallurgy	1-5
G912	Specifications and Test Methods in Dental Materials	1-5
G913	Clinical Application of Dental Materials	1-4
G921	Research	Arr.
G976	Advanced Preventive Dentistry	2
Minor: 6 to 8 hours, credit arranged		

ELECTIVE COURSES

G936	Clinical Technique for Children	1-3
G941	Advanced Crown and Bridge Technique	1-4
G951	Analysis of Operative Technique	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 worth-while 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

Major: Endodontia		Hours
G902	Advanced Oral Pathology	1-6
G905	Special Pathology of Bone	1-3
G908	Radiologic Interpretation	1
G909	Recent Advances in Dentistry	1
G910	Seminar (2 semesters, 1 hour each)	2
G926	Research	Arr.
G948	Advanced Radiology	1-3
G956	Advanced Endodontia	1-6
G957	Analysis of Endodontia Theory	1-4
G959	Oral Microbiology	1-3
G976	Advanced Preventive Dentistry	2
Minor: 6 to 8 hours, credit arranged		

ELECTIVE COURSES

G901	Advanced Oral Histology and Embryology	2
G906	Tumor Clinic (2 semesters, ½ hour each)	1
G935	Dental Pediatrics	2
G941	Advanced Crown and Bridge Technique	1-4
G952	Study of Indirect and Plastic Restorations	2
G953	Recent Advances in Operative Dentistry	2
G962	Fundamentals of Occlusion	2-4
G974	Advanced Nutrition	2

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, in-

struments, 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	Advanced Oral Histology and Embryology	2
G909	Recent Advances in Dentistry	1
G910	Seminar (2 semesters, 1 hour each)	2
G911	Theory of Dental Metallurgy	1-5
G925	Research	Arr.
G950	Advanced Operative Dentistry	1-6
G951	Analysis of Operative Technique	2
G952	Study of Indirect and Plastic Restorations	2
G953	Recent Advances in Operative Dentistry	2
G976	Advanced Preventive Dentistry	2
Minor: 6 to 8 hours, credit arranged		

ELECTIVE COURSES

G902	Advanced Oral Pathology	1-6
G948	Advanced Radiology	1-3
G956	Advanced Endodontia	1-6
G967	Advanced Periodontia	1-3
G974	Advanced Nutrition	2
G976	Advanced Preventive Dentistry	2

ORAL DIAGNOSIS-ORAL MEDICINE

A program of advanced study is available to the dentist who wishes to prepare himself for teaching and/or research, with a major interest in oral diagnosis. In this program, emphasis will be placed on didactic course work concerned with oral pathology and oral medicine, and on the application of this knowledge in the oral diagnosis clinic. The histopathology laboratory also will be utilized. The program for each individual will be planned according to his interests and objectives. The thesis requirement may be met through the performance of either clinical or laboratory research. The following courses are suggested in order to meet the 14-hour minimal requirement in the major field, 6 to 8 hours in the minor, 6 hours in research, and the hours of electives.*

REQUIRED COURSES

Major: Oral Diagnosis-Oral Medicine		Hours
Gen. Path. C603	General Pathology I	1-4
G901	Advanced Oral Histology and Embryology	2
G902	Advanced Oral Pathology	3-6
G906	Tumor Clinic (2 semesters, 1/2 hour each)	1
G907	Oral Surgical Pathology Conference (2 semesters, 1/2 hour each)	1
G908	Radiologic Interpretation	1
G909	Recent Advances in Dentistry	1
G918	Research	Arr.
G965	Histophysiology and Pathology of the Periodontium	3
G968	Advanced Clinical Oral Diagnosis-Oral Medicine	1-4
G969	Advanced Oral Diagnosis-Oral Medicine	2
Minor: 6 to 8 hours, credit arranged		

* Any graduate course listed on pages 35-41 may be elective.

ELECTIVE COURSES

G904	Special Pathology of Neoplasms	1
G905	Special Pathology of Bone	1
G959	Oral Microbiology	2-3
G973	Vitamins, Mineral Metabolism, and Hormones	2
G974	Advanced Nutrition	2
G976	Advanced Preventive Dentistry	2
G977	Preventive Dentistry Laboratory	1-3

In addition to the above, any course listed in the *Bulletin of the Graduate School* may be elective.

In essence, it is proposed to train such persons, to a reasonable extent, as bench pathologists, but with considerable emphasis on the application of this knowledge at the chairside in a teaching capacity. There is no clear-cut definition of "oral medicine" at this institution, but the course has been so designed that it would be acceptable to the (unrecognized) American Board of Oral Medicine, should the applicant wish to pursue qualifications in this field. If the applicant should wish to seek certification by the American Board of Oral Pathology, he could be guided toward this end through the co-operation of the Department of Oral Pathology. In any case, emphasis will be placed on clinical oral diagnosis and research in this field.

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
Gen. Path. C603	General Pathology I	1-4
G901	Advanced Oral Histology and Embryology	2
G902	Advanced Oral Pathology	1-6
G903	Histologic Technique	1
G904	Special Pathology of Neoplasms	3
G905	Special Pathology of Bone	1-3
G906	Tumor Clinic (2 semesters, ½ hour each)	1
G907	Oral Surgery Pathology Conference (2 semesters, ½ hour each)	1
G908	Radiologic Interpretation	1
G909	Recent Advances in Dentistry	1
G910	Seminar (2 semesters, 1 hour each)	2
G920	Research	Arr.
Minor: 6 to 8 hours, credit arranged		

ELECTIVE COURSES

G948	Advanced Radiology	1-3
G959	Oral Microbiology	1-3
G967	Advanced Periodontia	1-3
G974	Advanced Nutrition	2
G976	Advanced Preventive Dentistry	2
G996	Epidemiology	2

ORTHODONTIA

The program of graduate instruction is offered for the dentist desiring to specialize in the field of orthodontia.

The primary objectives of the course are:

1. The development of an appreciation of optimal occlusion in the broadest sense with special consideration to function, stability, and esthetics.

2. The gaining of a thorough knowledge of the dento-facial complex with reference to anatomical structure, variation, and growth and development, and their demonstration by analytic methods.

3. The development of an awareness of soft and hard tissue changes during growth and repair, and response of these tissues to local and systemic influences including mechanical therapy.

4. The acquiring of an understanding of the principles and materials involved in the bio-mechanics of treatment and proficiency in the techniques involved.

A total of 30 semester hours is required, 14 hours in the major field and a minimum of 6 hours in an elective minor. An original research project and a thesis are also required. An M.S. or M.S.D. is conferred upon the satisfactory completion of the requirements and a minimum residence of 18 months.

REQUIRED COURSES

Major: Orthodontia		Hours
G909	Recent Advances in Dentistry	1
G947	Cephalometrics	4
G958	Bio-Mechanics	2
G960	Advanced Orthodontic Clinic	6
G963	Advanced Orthodontic Techniques	2
G964	Dento-Facial Analysis	2
Minor: 6 to 8 hours, credit arranged		

ELECTIVE COURSES*

G900	Statistics	2
G901	Advanced Oral Histology and Embryology	2
G902	Advanced Oral Pathology	2
G905	Special Pathology of Bone	2
G912	Specifications and Test Methods in Dental Materials	3
G974	Advanced Nutrition	2
G991	Advanced Anatomy of Head and Neck	2
Totals: Major Field		14 hours
Elective		8 hours (minimum)
Minor		6 hours (minimum)

PEDODONTIA

The program of graduate instruction is designed to prepare a graduate dentist to practice pedodontia 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.

* Other elective courses may be considered on approval of the Orthodontia Department and the Graduate Committee.

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;
4. 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;
5. Become familiar with the practice of modern endodontics and therapy for pulp-involved teeth and management of a condition involving teeth traumatized during accidents;
6. Acquire ability to diagnose and treat any growth, developmental, and health problem of childhood which is legitimately within the province of the pedodontist;
7. 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 pedodontia 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	Advanced Oral Pathology	1-6
G909	Recent Advances in Dentistry	1
G922	Research	Arr.
G934	Clinical Dentistry for Children	1-6
G935	Dental Pediatrics	2
G962	Fundamentals of Occlusion	2-4
G974	Advanced Nutrition	2
G976	Advanced Preventive Dentistry	2
Minor: 6 to 8 hours, credit arranged		

ELECTIVE COURSES

Ped. K701	Pediatrics Lecture I	Audit
G911	Theory of Dental Metallurgy	1-5
G936	Clinical Technique for Children	1-3
G948	Advanced Radiology	1-3
G956	Advanced Endodontia	1-6
G967	Advanced Periodontia	4
G996	Epidemiology	2

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

Major: Periodontia		Hours
G902	Advanced Oral Pathology	1-6
G905	Special Pathology of Bone	1-3
G909	Recent Advances in Dentistry	1
G910	Seminar (2 semesters, 1 hour each)	2
G928	Research	Arr.
G962	Fundamentals of Occlusion	2-4
G966	Advanced Clinical Periodontia	4
G967	Advanced Periodontia (2 semesters, 2 hours each)	4
G974	Advanced Nutrition	2
G976	Advanced Preventive Dentistry	2
Minor: 6 to 8 hours, credit arranged		

ELECTIVE COURSES

G901	Advanced Oral Histology and Embryology	2
G908	Radiologic Interpretation	1
G948	Advanced Radiology	1-3
G971	Intermediary Metabolism	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.

REQUIRED COURSES

Major: Preventive Dentistry		Hours
G909	Recent Advances in Dentistry	1
G910	Seminar (2 semesters, 1 hour each)	2
G930	Research	Arr.
G971	Intermediary Metabolism	3
G973	Vitamins, Mineral Metabolism, and Hormones	2
G976	Advanced Preventive Dentistry	2
G977	Preventive Dentistry Laboratory	1-3
G996	Epidemiology	2
G999	Public Health Practice	1-6
Minor: 6 to 8 hours, credit arranged		

ELECTIVE COURSES

G902	Advanced Oral Pathology	1-6
G934	Clinical Dentistry for Children	1-6
G948	Advanced Radiology	1-3
G974	Advanced Nutrition	2

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: Prosthetic Dentistry		Hours
G902	Advanced Oral Pathology	1-6
G909	Recent Advances in Dentistry	1
G910	Seminar (2 semesters, 1 hour each)	2
G914	Advanced Prosthetic Theory	1-3
G915	Advanced Prosthetic Clinic	1-6
G916	Special Problems in Prosthetic Design	1-4
G917	Maxillofacial Prosthesis	1
G919	Research	Arr.
G940	Advanced Clinical Instruction in Crown and Bridge Prosthodontics	1-6
G962	Fundamentals of Occlusion	2-4
G991	Advanced Anatomy of Head and Neck	1-3
Minor: 6 to 8 hours, credit arranged		

ELECTIVE COURSES

Surgical consideration in prosthodontia:

G901	Advanced Oral Histology and Embryology	2
G911	Theory of Dental Metallurgy	1-5
G913	Clinical Application of Dental Materials	1-4
G947	Cephalometrics	4
G948	Advanced Radiology	1-3
G967	Advanced Periodontia	4
G974	Advanced Nutrition	2
G976	Advanced Preventive Dentistry	2

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.

REQUIRED COURSES

Major: Public Health		Hours
G909	Recent Advances in Dentistry	1
G910	Seminar (2 semesters, 1 hour each)	2
G933	Research	Arr.
G995	Biostatistics	3
G996	Epidemiology	2
G997	Sanitation and Industrial Hygiene	3
G998	Health Education	3
G999	Public Health Practice	1-6
Minor: 7 to 9 hours, credit arranged		

ELECTIVE COURSES

G908	Radiologic Interpretation	1
G971	Intermediary Metabolism	3
G974	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.

REQUIRED COURSES

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

ELECTIVE COURSES

G904	Special Pathology of Neoplasms	3
G974	Advanced Nutrition	2
G976	Advanced Preventive Dentistry	2
G977	Preventive Dentistry Laboratory	1-3

Postgraduate Study in Dentistry

Students who wish to take graduate courses in dentistry, but do not wish to study for an advanced degree or who are not eligible to enter the Graduate Dental Program, may take some of the courses as postgraduate students. Students taking postgraduate courses will receive academic credit by paying the regular fees for such courses. The grades earned will be recorded in the Office of Records and Admissions and will also appear on official University transcripts.

The Curriculum for Dental Hygienists

Dean and Professor HINE; Professors MISSELHORN, PHILLIPS, VAN HUYSEN; Associate Professor PING; Assistant Professors FISK (Director), STANDISH, WILSON; Instructors ACKERMAN, BENJAMIN, MATLOCK, PALLARDY; Graduate Assistant SPEDDING. 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 the District of Columbia, and in all the states of the United States, including Hawaii and Alaska.

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 on the campus. The rent is \$40 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; for nonresidents, the basic fee is \$18 a credit hour. Books, instruments, and uniforms cost approximately \$250 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

H100-H101. Human Biology I-II: First Year. (4-4 cr.)

Drs. VAN HUYSSEN, 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.

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

Miss FISK, Miss ACKERMAN, Miss PALLARDY.

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

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.

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

Dr. MISSELHORN, Dr. WILSON, Miss ACKERMAN.

This course includes the gross study of the morphology of teeth, their arrangement, and occlusions. Reproductions are made of various types of human teeth.

H105. General Chemistry: First Year. (3 cr.) Dr. NORMAN.

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.

* Rates and fees are subject to change by action of the Board of Trustees.

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.

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.

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

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.

Allied Health E443. Public Health Education Methods. (3 cr.)**(2 hours, lecture; 1 hour, laboratory)****Mr. ANDREWS.**

Consideration of the more usual techniques of group work; investigations of social and psychological factors which determine the effectiveness of group work in promoting public health activities; study of necessary tools and procedures. Laboratory provides opportunity for gaining competence in group work and in the design, construction, and use of materials.

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.

H209. Practice of Community Dental Hygiene: Second Year.**(2 cr.)****Dr. GISH and Staff.**

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

H210. Technical Writing: Second Year. (2 cr.)**Staff.**

Required course for dental hygienists. This is an integrated course combining the evaluation and reporting of research in dentistry.

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.

* From the Indianapolis Center of the Division of University Extension.

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.

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.

H106. Preventive Dentistry. (1 cr.) Dr. JENNINGS.

This series of lectures is designed to acquaint the dental hygiene student with various aspects of the detection and the prevention of dental disease.

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.

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

An introductory course to acquaint the student with the historical background, early development, and objectives of public health; its structure at federal, state, and local levels. Legal and financial aspects, organization, administration, and program content. The function of each professional category of personnel, with emphasis upon community understanding and co-operation.

Sociology S161. Principles of Sociology. (First 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.

Allied Health S321. Environmental Sanitation. (3 cr.) Mr. ADAMS.

A survey course. Considers broad objectives of environmental sanitation through application of sanitary procedures on a community-wide basis. Control of water supplies, sewage systems, solid waste handling, air hygiene, food and milk sanitation, housing, radiological health, insect and rodent control are discussed in the light of their influence on man's health.

* From the Indianapolis Center of the Division of University Extension.

† Required for graduation, but not offered by the School of Dentistry.

DENTAL HYGIENE CURRICULUM

FIRST YEAR

Courses	First Semester Laboratory or		Second Semester Laboratory or		Total Credit Hours	Total Clock Hours
	Lecture	Clinic	Lecture	Clinic		
Human Biology	3	1	3	1	8	160
*English Composition	2	0	2	0	4	64
Principles of Sociology			3	0	3	48
Dental Anatomy	1	2			3	80
General Chemistry and Nutrition	3	0			3	48
Dental Prophylaxis Technique	1	2			3	80
Microbiology			1	2	3	80
Introduction to Educational Psychology....			3	0	3	48
Pharmacology and Therapeutics			1	0	1	22
Clinical Practice			1	3	4	160
Preventive Dentistry			1	0	1	16
Total					36	806

SECOND YEAR

*Public Speaking	2	0			2	32
Oral Pathology	2	0			2	32
Clinical Practice	1	4	1	4	10	416
Dental Materials	1	1			2	48
Radiology	2	1			3	80
Public Health Education Methods			3	0	3	48
Public Health Organization and Administration			3	0	3	48
Child Development			3	0	3	48
First Aid			1	0	1	22
Community Practice of Dental Hygiene....			0	†2	2	105
Technical Writing			2	0	2	32
Environmental Sanitation			3	0	3	48
Total					36	959
Grand Total						1,765

DEGREE PROGRAM

A program leading to a Bachelor of Science in Public Health Dental Hygiene is offered by the Division of Allied Health Sciences of the School of Medicine. This program prepares the student for administrative positions in departments of public health and in schools for dental hygienists. Credit received in the Dental Hygiene Curriculum may also be applied on degrees in other areas.

For further information relative to the degree program, write to the Director, Public Health Dental Hygiene, Indiana University Medical Center, 1300 West Michigan Street, Indianapolis, Indiana.

TRANSFER STUDENTS

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

* Required for graduation, but not offered by the School of Dentistry.

† 105 hours of field work.