# MEDICAL SCHOO

PORTLAND, OREGO



OREGON STATE SYSTEM OF HIGHER EDUCATIO

### UNIVERSITY OF OREGON BULLETIN

#### NUMBER 116

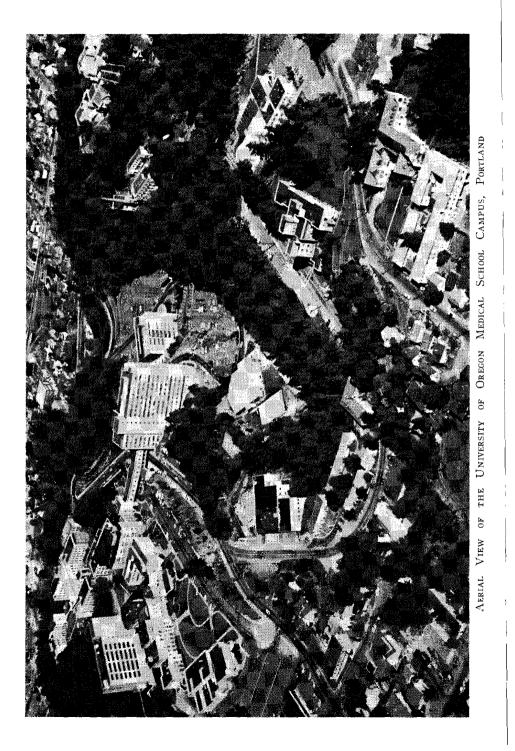
AUGUST 1963

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# UNIVERSITY OF OREGON MEDICAL SCHOOL

1963-64 CATALOG

PORTLAND, OREGON

# Table of Contents

	Page
Oregon State System of Higher Education	5
State Board of Higher Education	6
Administrative Officers, State System	7
Medical School Calendar, 1963-64	8
OFFICERS OF ADMINISTRATION	10
FACULTY	13
Hospitals and Clinics	
General Information	
History	
Physical Facilities	
Philosophy and Objectives	
Accreditation	
Administration and Faculty	
Instruction	
Research	
Alumni Association	
Student Organizations	
Social Activities and Athletics	
Housing	
Student Health Service	
Fellowships, Scholarships, Prizes, Loan Funds	
Academic Requirements and Regulations	
Admission Requirements	
Processing of Applications	
Fees and Expenses	64
Scholastic Regulations	66
Curriculum in Medicine	68
Description of Courses	<b>7</b> 0
Course-Numbering System	
Basic Science Departments	70
Anatomy	70
Bacteriology	72
Biochemistry	73
Clinical Pathology	73
Medical Psychology	74
Pathology	75
Pharmacology	76
[3]	

DESCRIPTION OF COURSES (continued)	Page
Physiology	
Clinical Departments	
Medicine	
Internal Medicine	84
Neurology	86
Dermatology	86
Dental Medicine	87
Psychiatry	
Radiology	88
Public Health and Preventive Medicine	89
Surgery	
Ophthalmology	
Otology, Rhinology, and Laryngology	95
Obstetrics and Gynecology	
Pediatrics	98
SPECIAL PROGRAMS	
Graduate Studies	
Internship and Residency Programs	
Postgraduate Program	
School of Nursing	104
Hospital Dietetics	
Radiologic Technology	
Medical Technology	
ENROLLMENT AND DEGREES	

# Oregon State System of Higher Education

The Oregon State System of Higher Education, as organized in 1932 by the State Board of Higher Education, following a survey of higher education in Oregon by the U. S. Office of Education, includes all the state-supported institutions of higher education. The several institutions are elements of an articulated system, parts of an integrated whole. The educational program is so organized as to distribute as widely as possible throughout the state the opportunities for general education and to center on a particular campus specialized, technical, and professional curricula closely related to one another.

The institutions of the State System of Higher Education are the University of Oregon at Eugene, Oregon State University at Corvallis, Portland State College at Portland, Oregon College of Education at Monmouth, Southern Oregon College at Ashland, Eastern Oregon College at La Grande, and Oregon Technical Institute at Klamath Falls. The University of Oregon Medical School and the University of Oregon Dental School are located in Portland. The General Extension Division, representing all the institutions, has headquarters in Portland and offices in Ashland, Corvallis, Eugene, La Grande, Monmouth, and Salem.

At Oregon College of Education, Southern Oregon College, and Eastern Oregon College, students may complete major work in teacher education or general studies or enroll in a preprofessional program.

Portland State College offers major work in general studies and selected liberal arts and professional fields, as well as certain preprofessional programs.

At the University of Oregon and Oregon State University, major curricula, both liberal and professional, are grouped on either campus in accordance with the distinctive functions of the respective institutions in the unified state system of higher education.

Terminal courses in technical and semiprofessional areas are offered at Oregon Technical Institute.

An interinstitutional booklet, *Your Education*, which outlines the curricula of the several institutions and contains other information, is available. For a copy, write to Division of Information, Board of Higher Education, P.O. Box 5175, Eugene, Oregon.

# State Board of Higher Education

Term

pires
1964
1964
1965
1965
1966
196 <b>7</b>
1968
1969
1969

#### Officers

WILLIAM E. WALSH	President
CHARLES R. HOLLOWAY, JRVice	-President
J. W. FORRESTER, JRMember, Executive (	Committee

Roy E. LIEUALLEN, Ed.D., L.H.D., Chancellor RICHARD L. COLLINS, M.A., C.P.A., Secretary of Board

Office of the State Board of Higher Education Post Office Box 5175 Eugene, Oregon

Board members are appointed to six-year terms by the Governor of Oregon with confirmation by the State Senate.

# Oregon State System of Higher Education Officers

Roy E. LIEUALLEN, Ed.D., L.H.D., Chancellor

ARTHUR S. FLEMMING, LL.D. JAMES H. JENSEN, Ph.D. President, University of Oregon President, Oregon State University

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President, Eastern Oregon College

BRANFORD P. MILLAR, Ph.D. President, Portland State College LEONARD W. RICE, Ph.D. President, Oregon College of Education •

WINSTON D. PURVINE, A.B., LL.D. Director, Oregon Technical Institute

RICHARD L. COLLINS, M.A., C.P.ASecretary, Board of Higher Education; Budget Director
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JAMES W. SHERBURNE, Ph.DVice-Chancellor for Continuing Education
DONALD R. LARSON, B.AAssistant Chancellor; Director of Public Services
FRANCIS B. NICKERSON, Ed.DAssistant to the Chancellor ; Chairman, High School-College Relations Committee
WILLIAM H. CARLSON, M.ADirector of Libraries
AUGUST L. STRAND, Ph.D., LL.DDirector of Institutional Research
WOLF D. VON OTTERSTEDT, LL.BAssistant Attorney General assigned to Board Office

#### Former Chancellors Oregon State System of Higher Education

WILLIAM J. KERR, D.Sc., LL.D	1932-1935
Frederick M. Hunter, Ed.D., LL.D	1935-1946
PAUL C. PACKER, Ph.D	1946-1950
Charles D. Byrne, Ed.D	1950-1955
John R. Richards, Ph.D	1955-1961

# University of Oregon Medical School

# Calendar, 1963-64

### Medical and Graduate Students

#### Fall Term, 1963-64

September 16, Monday	Registration
September 17, Tuesday	Instruction begins
September 30, Monday	Last day to register for full credit or to change courses
November 28, Thursday	Thanksgiving Day, holiday
December 7, Saturday	Fall term ends

#### Winter Term, 1963-64

December 9, Monday	Instruction begins
December 20, Friday	Last day to register for full credit or to change courses
December 23, 1963, through Januar	y 4, 1964Christmas vacation
March 14, Saturday	Winter term ends

#### Spring Term, 1963-64

March 23, Monday	Instruction begins
April 6, Monday	Last day to register for full credit or to change courses
May 30, Saturday	Memorial Day, holiday
June 12, Friday	Commencement
June 13, Saturday	Spring term ends

#### Summer Term, 1964

June 15, Monday	Registration
June 15, Monday	Instruction begins
June 29, MondayLa	st day to register for full credit or to change courses
July 4, Saturday	Independence Day, holiday
September 5, Saturday	Summer term ends

# University of Oregon Medical School

# Calendar, 1963-64

### Medical Technology Students

#### Fall Term, 1963-64

September 9 through September	14Laboratory orientation
September 16, Monday	Registration ; instruction begins
September 30, Monday	Last day to register for full credit or to change courses
November 28, Thursday	Thanksgiving Day, holiday
November 30, Saturday	Fall term ends

#### Winter Term, 1963-64

December 2, Monday	Registration; instruction begins
December 16, Monday	Last day to register for full credit or to change courses
December 23, 1963, through Janua	ry 4, 1964Christmas vacation; laboratory instruction continues
February 29, Saturday	

#### Spring Term, 1963-64

March 9, Monday	Registration; instruction begins
March 23, Monday	Last day to register for full credit or to change courses
May 23. Saturday	

In addition to the classroom instruction schedule listed above, students are required to be in attendance for laboratory instruction as required by the Department of Clinical Pathology. The entire program of classroom and laboratory instruction covers a period of one calendar year.

#### OFFICERS OF ADMINISTRATION

# University of Oregon Medical School

### Officers of Administration

Roy E. LIEUALLEN, Ed.D., L.H.D., Chancellor, Oregon State System of Higher Education; Professor.

ARTHUR S. FLEMMING, LL.D., President, University of Oregon; Professor.

- DAVID W. E. BAIRD, M.D., LL.D., Dean of the Medical School; Professor of Medicine.
- CHARLES N. HOLMAN, M.D., Associate Dean of the Medical School; Professor of Medicine.
- WILLIAM A. ZIMMERMAN, B.S., Assistant Dean for Business Affairs; Professor.
- JOSEPH J. ADAMS, B.B.A., Assistant Dean for Institutional Relations; Associate Professor.

FRED A. MATTHIAS, B.B.A., Business Manager; Associate Professor.

M. R. PARELIUS, M.Sc., LL.B., Director of Research Services; Instructor.

#### Hospitals and Clinics Administration

DAVID W. E. BAIRD, M.D., Dean; Professor of Medicine.

- CHARLES N. HOLMAN, M.D., Medical Director and Administrator; Professor of Medicine.
- JARVIS GOULD, M.D., Assistant Medical Director and Assistant Administrator; Associate Professor of Medicine.
- MYRON R. GROVER, M.D., Assistant Medical Director; Assistant Professor of Medicine.

GWYNN C. BRICE, Administrative Assistant; Assistant Director of Outpatient Clinic; Assistant Professor.

#### Business Office

WILLIAM A. ZIMMERMAN, B.S., Assistant Dean for Business Affairs; Professor.

FRED A. MATTHIAS, B.B.A., Business Manager; Associate Professor.

BYRON E. PHILLIPS, B.A., Personnel Officer.

#### Institutional Relations

JOSEPH J. ADAMS, B.B.A., Assistant Dean for Institutional Relations; Associate Professor.

KENNETH A. NIEHANS, B.A., Director of Public Affairs; Instructor.

MARY ANN ADEMINO, Director of Publications and Special Events.

#### **Registrar's Office**

CAROLINE O. ANDERSON, B.S., Registrar; Assistant Professor.

#### Student Activities

WILSON C. DOCKERY, B.S., Director of Student Activities; Instructor.

#### Library

BERTHA B. HALLAM, B.A., Librarian; Professor. Ora K. Goodman, B.S., Catalog Librarian; Assistant Professor. MARGARET E. HUGHES, B.S., Circulation Librarian; Assistant Professor. LOLITA B. MCELVENY, Assistant Circulation Librarian; Instructor. MARIE K. WAGNER, B.S., Assistant Circulation Librarian; Instructor.

#### Buildings and Grounds

A. J. CLEMONS, Superintendent of Physical Plant; Assistant Professor. CHARLES H. ANDERSON, Assistant Superintendent of Physical Plant.

#### Postgraduate Education

CHARLES N. HOLMAN, M.D., Director; Professor of Medicine. GWYNN C. BRICE. Administrative Assistant: Assistant Professor.

#### Alumni Office

JOSEPH J. ADAMS, B.B.A., Executive Secretary; Associate Professor.

#### Student Health Service

JOSEPH B. TRAINER, M.D., Health Service Physician; Associate Professor of Physiology and Medicine.

#### **Animal Care Program**

ALLAN L. ROGERS, B.A., Director; Assistant Professor. LEROY F. ERICKSON, D.V.M., Instructor.

#### **Research Instrument Service**

GEORGE I. JOHNSTON, B.S., Director; Instructor.

#### Medical Illustration

CLARICE ASHWORTH FRANCONE, Medical Illustrator.

#### Photography

JAMES T. PHILLIPS, Photographer.

#### Printing

ALBERT L. BIGEJ, Supervisor.

#### Executive Faculty

ROY E. LIEUALLEN, Chancellor, State System of Higher Education; ARTHUR S. FLEMMING, President, University of Oregon; DAVID W. E. BAIRD, Dean of the Medical School; JOSEPH J. ADAMS, RALPH C. BENSON, JOHN M. BROOKHART, JACKSON T. CRANE, NORMAN A. DAVID, DAVID D. DEWEESE, CHARLES T. DOTTER, J. ENGLEBERT DUNPHY, ARTHUR W. FRISCH, JARVIS GOULD, CHARLES N. HOL-MAN, TYRA T. HUTCHENS, HOWARD P. LEWIS, JOSEPH D. MATARAZZO, RICHARD W. OLMSTED, EDWIN E. OSGOOD, ANTHONY A. PEARSON, GEORGE SASLOW, RICH-ARD L. SLEETER, KENNETH C. SWAN, ADOLPH WEINZIRL, EDWARD S. WEST, WIL-LIAM A, ZIMMERMAN (secretary).

#### Standing Committees

- Admission and Advanced Standing—Edward S. West (chairman), Robert L. BACON, HANCE F. HANEY, JOSEPH D. MATARAZZO, E. COLTON MEEK, JR., JOSEPH B. TRAINER, CAROLINE O. ANDERSON (ex officio).
- Committee on Animal Care—J. ENGLEBERT DUNPHY (chairman), Alfred J. RAMPONE, ROY L. SWANK, WILBERT R. TODD, WILLIAM A. ZIMMERMAN.

- Curriculum and Schedule—Howard P. Lewis (chairman), Joseph J. Adams, Ralph C. Benson, Norman A. David, Charles T. Dotter, J. Englebert Dunphy, Arthur W. Frisch, George Saslow, Wilbert R. Todd, Adolph Weinzirl.
- Graduate Council—John M. Brookhart (chairman), Robert L. Bacon, Joseph D. Matarazzo, Evelyn L. Oginsky, Elton L. McCawley, Benjamin V. Siegel, John T. Van Bruggen.
- Henry Waldo Coe Prize-HANCE F. HANEY (chairman), CLARENCE V. HODGES.
- Internship Advisory Committee-JOHN A. BENSON, JR. (chairman), WILLIAM S. FLETCHER, ROBERT D. KOLER.
- Investigational Drug Committee—NORMAN A. DAVID (chairman), ROBERT H. BIGLEY, HOWARD J. TATUM.
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- Library-Norman A. David (chairman), Morton Goodman, Noble Wiley Jones, Nelson R. Niles, Goodrich C. Schauffler, Archie R. Tunturi, Wilbert R. Todd, Bertha B. Hallam (ex officio).
- Patent-William A. Zimmerman (chairman), M. Ronald Parelius, Bernard Pirofsky, Benjamin B. Ross, Roy L. Swank, John T. Van Bruggen.
- Radioisotope Committee-TYRA T. HUTCHENS (chairman), CLIFFORD V. ALLEN, EDWIN E. OSGOOD, JOHN T. VAN BRUGGEN.
- Research—John M. Brookhart (chairman), Robert L. Bacon, Jackson T. Crane, Frederick P. Haugen, Walter C. Lobitz, Jr., James Metcalfe, Edward S. West, M. Ronald Parelius (ex officio).
- Scholarships—Edward S. West (chairman), Clarence V. Hodges, Walter C. Lobitz, Jr., William A. Zimmerman.
- Student Faculty—Faculty Members: FREDERICK P. HAUGEN (chairman), HOW-ARD P. LEWIS, ANTHONY A. PEARSON, CLARE G. PETERSON, EDWARD S. WEST. Student members are elected for one- or two-year terms.
- Dean's Advisory Committee for the Veterans Hospital—D. W. E. BAIRD (chairman), JARVIS GOULD (vice-chairman and secretary), JACKSON T. CRANE, J. ENGLEBERT DUNPHY, DONALD E. FORSTER, CHARLES N. HOLMAN, TYRA T. HUTCHENS, HOWARD P. LEWIS, HAROLD J. NOYES, GEORGE SASLOW, KEN-NETH C. SWAN, EDWARD S. WEST.

### Emeritus Faculty

HARRY C. BLAIR, M.D., Professor Emeritus of Orthopedic Surgery.
ISIDOR C. BRILL, M.D., Associate Professor Emeritus of Medicine.
C. ELMER CARLSON, M.D., Professor Emeritus of Orthopedic Surgery.
BLAIR HOLCOMB, M.D., Professor Emeritus of Medicine.
NOBLE WILEY JONES, M.D., Professor Emeritus of Medicine.
LYLE B. KINGERY, M.D., Professor Emeritus of Medicine.
WILLIAM K. LIVINGSTON, M.D., Professor Emeritus of Medicine.
WILLIAM K. LIVINGSTON, M.D., Professor Emeritus of Surgery.
MERL L. MARGASON, M.D., Professor Emeritus of Medicine.
FRANK R. MENNE, M.D., Professor Emeritus of Pathology.
MERLE W. MOORE, M.D., Associate Professor Emeritus of Medicine.
EUGENE W. ROCKEY, M.D., Professor Emeritus of Surgery.
HOMER P. RUSH, M.D., Professor Emeritus of Surgery.

LAURENCE SELLING, M.D., Professor Emeritus of Medicine.

# Faculty\*

- JOHN F. ABELE, M.D., Assistant Clinical Professor of Orthopedic Surgery (1946). B.A. (1930), M.D. (1934), Oregon.
- JOHN C. ADAMS, M.D., Clinical Professor of Surgery (1932). B.S. (1922), University of Washington; M.D. (1926), Oregon.
- JOSEPH J. ADAMS, B.B.A., Assistant Dean for Institutional Relations; Alumni Executive Secretary (Associate Professor) (1951). B.B.A. (1949), Gonzaga.
- H. VICTOR ADIX, M.D., Clinical Associate in Otolaryngology (1934). B.A. (1928), M.D. (1930), Oregon; M. Med. Sc. (1933), Pennsylvania.
- BERNADENE V. ALLEN, Ph.D., Instructor in Medical Psychology (1962). B.A. (1956), Whitman; M.S. (1958), Ph.D. (1961), University of Portland.
- CLIFFORD V. ALLEN, M.D., Professor of Radiology (1955). M.D. (1933), Iowa.
- ANNALENE J. AMIRANA, M.D., Instructor in Anesthesiology (1962). M.D. (1959), University of Heidelberg, Germany.
- CAROLINE O. ANDERSON, B.S., Registrar (Assistant Professor) (1943). B.S. (1928), Nebraska.
- RICHARD P. ANDREWS, M.D., Clinical Instructor in Surgery (1963). B.S. (1949), Denison; M.D. (1953), Harvard.
- JAMES S. ARNOLD, M.D., Clinical Associate in Clinical Pathology (1961). B.S., M.D. (1948), Duke.
- CARL G. ASHLEY, M.D., Assistant Clinical Professor of Pediatrics (1936). B.A. (1927), M.D. (1931), Oregon.
- KURT W. AUMANN, M.D., Assistant Clinical Professor of Medicine (1948). B.S. (1936), Washington State; M.A. (1940), M.D. (1942), Oregon.
- <sup>†</sup>GEORGE M. AUSTIN, M.D., Professor of Neurosurgery; Head of Division (1957). A.B. (1938), Lafayette; M.D. (1942), Pennsylvania.
- JAMES H. AUSTIN, M.D., Associate Professor of Neurology (1955). M.D. (1948), Harvard.
- S. GORHAM BABSON, M.D., Associate Professor of Pediatrics (1941). B.S. (1933), M.D. (1936), Oregon.
- DANIEL M. BACHMAN, M.D., Associate Professor of Medicine (1956). B.A. (1949), Reed; M.S., M.D. (1952), Oregon.
- ROBERT L. BACON, Ph.D., Professor of Anatomy (1955). B.S. (1940), Hamilton; Ph.D. (1944), Yale.
- PAUL BAILEY, M.D., Clinical Professor of Otolaryngology (1929). M.D. (1925), Oregon.
- PAUL F. BAILEY, M.D., Clinical Associate in Ophthalmology (1958). B.S. (1951), Oregon State; M.D. (1953), Oregon.
- RICHARD E. BAILEY, M.D., Assistant Professor of Medicine (1961). B.A. (1951), M.D. (1955), Stanford.
- DAVID W. E. BAIRD, M.D., Dean of the Medical School; Professor of Medicine (1928).

M.D. (1926), Oregon; LL.D. (1946), University of Portland.

<sup>\*</sup> The year in parentheses following the name of each faculty member indicates the date of original appointment to the faculty.

<sup>&</sup>lt;sup>†</sup> On leave of absence, Department of Physiology, Cambridge University, England, from Sept. 15, 1963 to Sept. 14, 1964.

- MICHAEL D. BAIRD, M.D., Assistant Professor of Medicine (1961). B.S. (1954), Reed; M.S., M.D. (1957), Oregon.
- HARVEY W. BAKER, M.D., Clinical Associate in Surgery (1953). B.A. (1939), Cornell; M.D. (1943), Columbia.
- MARY ELIZABETH BAPTIST, B.A., Instructor in Medical Technology (1950). B.A. (1944), Montana State University.
- JOHN W. BASSETT, M.D., Clinical Associate in Surgery (1954). B.S. (1943), Arkansas; M.D. (1944), Tulane.
- JACK E. BATTALIA, M.D., Clinical Instructor in Surgery (1954). B.A. (1945), Reed; M.D. (1946), Oregon.
- SAMUEL T. BEALL, M.D., Clinical Instructor in Medicine (1954). A.B. (1940), Whitman; M.D. (1950), Louisville.
- RODNEY K. BEALS, M.D., Assistant Professor of Orthopedic Surgery (1961). B.A. (1953), Willamette; M.D. (1956), Oregon.
- G. DONALD BEARDSLEY, M.D., Clinical Instructor in Urology (1954). B.A. (1945), M.D. (1947), Oregon.
- CLARISSA H. BEATTY, Ph.D., Associate Professor of Biochemistry (1953). B.A. (1941), Sarah Lawrence; M.S. (1942), Ph.D. (1945), Columbia.
- WILLIAM S. BECK, M.D., Clinical Instructor in Medicine (1960). B.S. (1949), M.D. (1952), Northwestern.
- HARRY G. BECKWITH, JR., M.D., Clinical Instructor in Surgery (1953). B.A. (1938), Reed; M.D. (1942), Oregon.
- ROBERT H. BEDROSSIAN, M.D., Clinical Associate in Ophthalmology (1959). A.B. (1946), Haverford; M.D. (1947), Temple; M.Sc. (1953), Pennsylvania.
- RODERICK E. BEGG, M.D., Assistant Clinical Professor of Orthopedic Surgery (1939).
  - B.S. (1924), Oregon State; M.D. (1937), Oregon.
- ANIS M. BEHNAM, M.B., B.Ch., Clinical Instructor in Urology (1960). M.B., B.Ch. (1951), Faculty of Medicine, Cairo University, Egypt.
- ERNEST JACK BENNER, M.D., Instructor in Medicine (1963). B.A. (1953), Central Washington College of Education; M.D. (1960), Oregon.
- THOMAS T. BENNETT, M.D., Clinical Instructor in Psychiatry (1963). B.S. (1950), M.D. (1952), Oregon.
- JOHN A. BENSON, JR., M.D., Associate Professor of Medicine; Head of Division of Gastroenterology (1959).
   B.A. (1943), Weslevan University: M.D. (1946), Harvard.
- RALPH C. BENSON, M.D., Professor of Obstetrics and Gynecology; Chairman of Department (1956).
   B.A. (1932), Lehigh University; M.D. (1936), Johns Hopkins.
- FREDERIC H. BENTLEY, M.D., Clinical Instructor in Surgery (1953). B.S. (1926), M.B., Ch.B. (1929), M.D. (1946), Manehester (England); F.R.C.S. (1932), Royal College of Surgeons.
- JOHN H. BENWARD, M.D., Assistant Clinical Professor of Pediatrics (1943). B.S. (1937), M.D. (1939), Oklahoma.
- ARTHUR W. BERG, M.D., Clinical Associate in Medicine (1953). B.A. (1943), M.D. (1945), Oregon.
- RICHARD F. BERG, M.D., Assistant Clinical Professor of Orthopedic Surgery (1935).
  A.B. (1923), M.D. (1926), Oregon.
  - A.B. (1923), M.D. (1926), Oregon.

ARTHUR M. BERGMAN, M.D., Clinical Associate in Medicine (1948). B.A. (1940), M.D. (1943), New York University.

STANLEY F. BERGOUIST, M.D., Clinical Instructor in Cardiopulmonary Surgery (1956).B.S. (1945), M.D. (1947), Illinois, SIGERIED R. BERTHELSDORF, M.D., Clinical Instructor in Psychiatry (1957). B.A. (1934), M.A., M.D. (1939), Oregon. ADALBERT G. BETTMAN, M.D., Clinical Associate in Surgery (1932). M.D. (1907), Oregon. ROBERT H. BIGLEY, M.D., Assistant Professor of Medicine (1960). B.S. (1951), University of Washington; M.D. (1953), Oregon. MARCIA K. BILBAO, M.D., Instructor in Radiology (1961). B.S. (1952), Minnesota: M.D. (1957), Columbia, IOSEPH B. BILDERBACK, M.D., Clinical Professor of Pediatrics (1911). M.D. (1905), Oregon. DANIEL K. BILLMEYER, M.D., Assistant Clinical Professor of Pediatrics (1956). B.S. (1943), M.D. (1946), Chicago, THEODORE M. BISCHOFF, M.D., Assistant Clinical Professor of Obstetrics and Gynecology (1948). B.A. (1937), Reed; M.D. (1939), Oregon. HARRY C. BLAIR. M.D., Professor Emeritus of Orthopedic Surgery (1926). M.D. (1915), Oregon, PAUL H. BLACHLY, M.D., Assistant Professor of Psychiatry (1961). B.A. (1950), Reed; M.S., M.D. (1955), Oregon. ROBERT W. BLAKELEY, Ph.D., Assistant Professor of Speech Pathology (Pediatrics) (1959). B.A. (1951), California; M.S. (1952), Oregon; Ph.D. (1958), Michigan. JOHN A. BLANCHARD, M.D., Clinical Instructor in Medicine (1954). B.S. (1941), Montana State College: M.D. (1950), Oregon, RODERICK C. BLATCHFORD, M.D., Assistant Clinical Professor of Obstetrics and Gynecology (1938). A.B. (1927), Willamette; M.D. (1933), Oregon. ROSE MARY BOCEK. M.S., Instructor in Biochemistry (1957). B.S. (1946), Marylhurst; M.S. (1954), Oregon. HENRY L. BOEHNKE, M.D., Clinical Instructor in Pediatrics (1962). B.S. (1953), M.D. (1955), Oregon. DARRELL C. BOLLAM, M.D., Clinical Associate in Surgery (1937). B.S. (1927), M.D. (1928), Oregon. RICHARD N. BOLTON, M.D., Clinical Instructor in Obstetrics and Gynecology (1961).B.S. (1951), Willamette; M.D. (1955), Oregon. WILBUR M. BOLTON, M.D., Assistant Clinical Professor of Otolaryngology (1929). A.B. (1923), M.D. (1926), Oregon. DOUGLAS R. BOTTOMLY, M.D., Instructor in Medicine (1962). B.S. (1953), Carroll College; M.D. (1957), St. Louis University. ALLEN M. BOYDEN, M.D., Associate Clinical Professor of Surgery (1946). B.A. (1929), Oregon; M.D. (1932), M.S. (1937), Michigan. THOMAS J. BOYDEN, M.D., Clinical Instructor in Orthopedic Surgery (1953). B.A. (1944), M.D. (1946), Oregon. JEAN H. BOYES, B.S., Instructor in Cytotechnology (1961). B.S. (1948), Lewis and Clark College. GEORGE A. BOYLSTON, M.D., Assistant Clinical Professor of Medicine (1946).

B.S. (1936), M.S. (1937), M.D. (1939), Northwestern.

FACULTY

- CHARLES BRADLEY, M.D., Associate Clinical Professor of Child Psychiatry (1948). B.S. (1925), Cornell; M.D. (1929), Harvard.
- JAMES L. BRAMHALL, M.B., Assistant Professor of Clinical Pathology (1962). M.B., Ch.B. (1951), Victoria University of Manchester Medical School, England.
- JOHN O. BRANFORD, M.D., Clinical Instructor in Anesthesiology (1959). B.A. (1936), Concordia; M.D. (1946), Oregon.
- MELVIN W. BREESE, M.D., Assistant Clinical Professor of Obstetrics and Gynecology (1948).
   B.S. (1936), Oregon State: M.D. (1943), Oregon.
- GWYNN C. BRICE, Administrative Assistant; Assistant Director of Outpatient Clinic (Assistant Professor) (1946).
- MORRIS L. BRIDGEMAN, M.D., Associate Clinical Professor of Pediatrics (1927). Ph.D. (1916), Montana State University; M.D. (1924), Oregon.
- ISIDOR C. BRILL, Associate Professor Emeritus of Medicine (1916). B.A. (1912), M.D. (1914), Columbia.
- DONALD M. BRINTON, M.D., Clinical Instructor in Anesthesiology (1959). B.A. (1945), M.D. (1947), Oregon.
- JOHN DAVID BRISTOW, M.D., Assistant Professor of Medicine (1960). B.A. (1949), Willamette; M.D. (1953), Oregon.
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- JOHN HARDER, M.D., Clinical Instructor in Orthopedic Surgery (1959). B.A. (1945), Whitman; M.D. (1949), Oregon.
- CLIFFORD E. HARDWICK, M.D., Associate Clinical Professor of Surgery (1947). B.S., M.D. (1929), Oregon.
- ROBERT L. HARE, M.D., Clinical Instructor in Medicine (1956). B.S. (1947), M.D. (1949), Illinois; M.S. (1956), Minnesota.
- BERNARD P. HARPOLE, M.D., Clinical Instructor in Surgery (1949). B.S. (1935), M.D. (1939), St. Louis.
- HOMER H. HARRIS, M.D., Associate Clinical Professor of Clinical Pathology (1951).
   B.A. (1942), Reed; M.D. (1945), Oregon.
- JOSEPH T. HART, M.D., Assistant Clinical Professor of Pediatrics (1950). B.S.M. (1941), M.D. (1942), Creighton.
- WILLIAM L. HARTMANN, M.D., Assistant Clinical Professor of Obstetrics and Gynecology (1954). B.S. (1935), Harvard; M.D. (1939), Johns Hopkins.
- FREDERICK P. HAUGEN, M.D., Professor of Anesthesiology; Head of Division (1948). B.A. (1933), M.D. (1935), Oregon.
- GERHARD B. HAUGEN, M.D., Assistant Clinical Professor of Psychiatry (1937). B.A. (1932), M.D. (1935), Oregon; M.P.H. (1942), Johns Hopkins.
- JAMES B. HAWORTH, M.D., Associate Professor of Radiology (1953). B.S. (1933), M.D. (1936), Oregon.
- ALFRED G. HAYES, M.B., Assistant Professor of Anatomy (1963). M.B., Ch.B. (1960), Liverpool, England.
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- GORDON D. HAYNIE, M.D., Instructor in Medicine (1961). B.S. (1949), Idaho State; M.D. (1953), Oregon.
- THOMAS S. HEALY, M.D., Clinical Associate in Medicine (1951). B.A. (1940), M.D. (1942), Oregon.
- JACK R. HEGRENES, M.A., Instructor in Psychiatric Social Work (1962). B.S. (1952), Portland State; M.S. (1955), Oregon; M.A. (1960), Chicago.
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- PHILIP H. HENDERSON, JR., M.D., Clinical Instructor in Obstetrics and Gynecology (1954).
  - B.S. (1945), University of Washington; M.D. (1948), Oregon.
- EDWARD L. HENDRICKS, M.D., Assistant Clinical Professor of Pediatrics (1955). B.S. (1946), Oregon State; M.S. (1948), M.D. (1949), Oregon.
- RODNEY H. HERR, M.D., Instructor in Surgery (1963) B.A. (1953), Goshen; M.D. (1957), Northwestern.
- WILLIAM W. HICKS, JR., M.D., Clinical Instructor in Obstetrics and Gynecology (1958).
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- ROBERT B. HIGGINS, M.D., Assistant Clinical Professor of Urology (1960). A.B. (1941), M.D. (1944), Harvard.
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- WILLIAM E. HILL, M.D., Clinical Instructor in Pediatrics (1962). B.A. (1947), Maine; M.D. (1951), Tufts.
- VINCENT C. HINCK, M.D., Associate Professor of Radiology (1957). A.B. (1948), Cornell; M.D. (1953), New York Medical College.
- MARVIN C. HINES, Ph.D., Assistant Professor of Biochemistry and Associate in Ophthalmology (1962). B.A. (1954), Linfield; M.S. (1956), Washington; Ph.D. (1959), Oregon.
- CLARENCE V. HODGES, M.D., Professor of Urology; Head of Division (1948). B.S. (1937), Iowa State; M.D. (1940), University of Chicago.
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- BLAIR HOLCOMB, M.D., Professor Emeritus of Medicine (1922). M.D. (1919), University of Chicago (Rush).
- DONALD H. HOLDEN, M.D., Clinical Instructor in Otolaryngology (1953). A.B. (1941), Brown; M.D. (1944), Yale.
- CARL L. HOLM, M.D., Clinical Instructor in Orthopedic Surgery (1961). B.A. (1940), Willamette; M.D. (1943), Oregon.
- CHARLES N. HOLMAN, M.D., Professor of Medicine; Associate Dean of Medical School; Medical Director and Administrator of Hospitals and Clinics (1940). B.A. (1931), M.D. (1936), Oregon.
- RICHARD J. HOPKINS, M.D., Clinical Associate in Orthopedic Surgery (1950). B.S. (1943), Idaho; M.D. (1944), Oregon.
- MARCUS M. HORENSTEIN, M.D., Clinical Associate in Medicine (1947). B.A. (1937), M.D. (1941), Oregon.
- IRVING J. HOROWITZ, M.D., Clinical Instructor in Radiology (1959). B.S. (1946), M.S. (1947), M.D. (1952), Michigan.
- A. WESLEY HORTON, Ph.D., Professor of Biochemistry and Environmental Medicine (1962).

B.S. (1940), Wisconsin; M.S. (1947), Ph.D. (1949), Yale.

- DALE D. HOSKINS, Ph.D., Assistant Professor of Biochemistry (1963). B.S. (1953), M.S. (1955), Oregon State; Ph.D. (1960), Colorado.
- MARTIN A. HOWARD, M.D., Assistant Clinical Professor of Surgery (1929). B.S. (1923), M.D. (1926), Oregon.

JOHN L. HOWIESON, M.D., Clinical Instructor in Radiology (1960). B.A. (1950), M.A. (1951), M.D. (1955), Kansas.

JAY C. HOYT, M.D., Clinical Associate in Medicine (1956).

- WARREN C. HUNTER, M.D., Clinical Professor of Pathology (1922). B.A. (1920), Albany College; M.D. (1924), Oregon; M.A. (1927), Michigan.
- \*PETER L. HURST, M.D., Assistant Clinical Professor of Pediatrics (1956). B.S. (1950), Antioch; M.D. (1950), Washington University.
- WILLIAM W. HURST, M.D., Clinical Associate in Medicine (1952). B.S. (1942), Idaho State; B.M. (1945), M.D. (1946), Northwestern.
- TYRA T. HUTCHENS, M.D., Professor of Clinical Pathology; Chairman of Department (1953). B.S. (1943), M.D. (1945), Oregon.
- JACK H. HUTCHINSON, B.A., Instructor in Medicine (1961). B.A. (1949), Lewis and Clark.
- MILTON D. HYMAN, M.D., Assistant Clinical Professor of Radiology (1945). B.A. (1932), College of City of New York; M.S. (1933), New York University; M.D. (1937), Long Island.
- SELMA HYMAN, M.D., Associate Clinical Professor of Radiology (1944). B.S. (1932), M.D. (1938), New York University.
- TOSHIO INAHARA, M.D., Clinical Instructor in Surgery (1956). B.S. (1948), M.D. (1950), Oregon.
- JOHN B. ISOM, M.D., Associate Professor of Pediatrics (1963). B.A. (1950), M.D. (1954), Vanderbilt.
- DAVID S. JACKSON, Ph.D., Professor of Biochemistry (1959). B.Sc. (1949), Ph.D. (1953), Manchester, England.
- ROBERT C. JACKSON, M.D., Clinical Instructor in Obstetrics and Gynecology (1957)B.S. (1944), M.D. (1947), Oregon.
- STANLEY W. JACOB, M.D., Assistant Professor of Surgery (1959). B.A. (1945), M.D. (1948), Ohio State.
- FRANK M. JACOBSON, M.D., Clinical Instructor in Pediatrics (1962). M.D. (1951), Oregon.
- SHELDON A. JACOBSON, M.D., Associate Clinical Professor of Pathology (1950). A.B. (1922), College of City of New York; M.D. (1928), Yale.
- DAVID W. JAMES, M.D., Assistant Clinical Professor of Obstetrics and Gynecology (1949). B.S. (1930), Denison; M.D. (1933), Ohio State; M.S. (1940), Wayne.
- JOHN PAUL JARABAK, D.D.S., Clinical Associate in Dental Medicine (1960). D.D.S. (1939), Indiana.

ROBERT B. JOHNSON, M.D., Clinical Instructor in Medicine (1954). M.D. (1948), Nebraska.

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FACULTY	27
RODERICK L. JOHNSON, M.D., Clinical Instructor in Surgery (1960). B.S. (1948), M.D. (1951), University of Washington.	
WARREN E. JOHNSON, M.A., Clinical Instructor in Otolaryngology (Audiolog (1962).	gy)
A.B. (1949), Wabash; M.A. (1950), Northwestern.	
RUSSELL L. JOHNSRUD, M.D., Assistant Clinical Professor of Surgery (193 B.A. (1930), M.D. (1933), Oregon.	36).
GEORGE I. JOHNSTON, B.S., Director, Research Instrument Service (Instruct (1961). B.S. (1955), Johns Hopkins.	or)
ARTHUR C. JONES, M.D., Clinical Professor of Physical Medicine in Surg (1929).	ery
B.A. (1921), Pacific University; M.A. (1925), M.D. (1926), Oregon.	
<ul> <li>BENJAMIN B. JONES, M.D., Clinical Instructor in Obstetrics and Gynecol (1959).</li> <li>B.S. (1950), Pittsburgh; M.D. (1953), Temple.</li> </ul>	ogy
LESTER T. JONES, M.D., Clinical Professor of Otolaryngology (1924). B.A. (1918), Pacific University; M.D. (1921), M.A. (1923), Oregon.	
MAXWELL S. JONES, M.D., Clinical Professor of Psychiatry (1960).	
M.B.U.D. (1931), M.D. (1937), Edinburgh; M.R.C.P. (1935), Royal College of Pl cians and Surgeons, Edinburgh; D.P.M. (1935), London.	hysi-
NOBLE WILEY JONES, M.D., Professor Emeritus of Medicine (1910). A.B. (1895), Stanford; M.D. (1901), University of Chicago (Rush).	
ORVILLE N. JONES, M.D., Clinical Associate in Orthopedic Surgery (1947). B.A. (1931), Reed; M.D., C.M. (1937), McGill.	
<ul> <li>RICHARD T. JONES, M.D., Assistant Professor of Biochemistry and Experiment Medicine (1961).</li> <li>B.S. (1953), M.S., M.D. (1956), Oregon; Ph.D. (1961), California Institute Technology.</li> </ul>	
LEWIS W. JORDAN, M.D., Assistant Clinical Professor of Otolaryngology (193 B.S. (1929), M.D. (1931), Oregon.	36).
ROBERT L. KALEZ, M.D., Clinical Instructor in Urology (1963). B.S. (1954), Gonzaga; M.D. (1957), Creighton.	
HULDRICK KAMMER, M.D., Associate Clinical Professor of Medicine (1949) B.A. (1936), Wisconsin; B.M. (1940), M.D. (1941), Northwestern.	•
JOHN F. KANE, M.D., Assistant Clinical Professor of Surgery (1960). M.D. (1943), Marquette.	
FREDERICK H. KANFER, Ph.D., Professor of Medical Psychology (1962). B.S. (1948), Long Island; M.A. (1952), Ph.D. (1953), Indiana.	
JOHN O. KANGAS, Ph.D., Assistant Professor of Medical Psychology (1960) B.A. (1953), Ph.D. (1958), Minnesota.	•
REINHOLD KANZLER, M.D., Clinical Instructor in Surgery (1958). B.S. (1934), M.S. (1937), M.D. (1938), Oregon.	
DONALD G. KASSEBAUM, M.D., Assistant Professor of Medicine (1962). B.A. (1955), Reed; M.D. (1956), Oregon.	
JOHN P. KEIZER, M.D., Assistant Clinical Professor of Ophthalmology (19. B.A. (1934), M.D. (1937), Oregon.	53).
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DONALD F. KELLY, M.D., Clinical Instructor in Pediatrics; Clinical Associate in Dental Medicine (1959). B.S. (1949), University of Portland; M.D. (1954), Oregon.

B.S. (1946), B.M. (1947), M.D. (1948), Minnesota. GRANT B. HUGHES, M.D., Clinical Instructor in Psychiatry (1963). M.D. (1944), Temple. MARGARET E. HUGHES, Circulation Librarian (Assistant Professor) (1945). B.S. (1937), Minnesota, THOMAS K. HUNT, M.D., Instructor in Surgery (1963). B.S. (1952), M.D. (1956), Harvard. ARTHUR F. HUNTER, M.D., Assistant Clinical Professor of Radiology (1946). A.B. (1930), Denver; M.D. (1933), Colorado.

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- ROBERT W. KENDALL, M.D., Clinical Instructor in Cardiopulmonary Surgery (1960).
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- LENA KENIN, M.D., Assistant Professor of Psychiatry (1960). B.S. (1921), University of Washington; M.D. (1929), Oregon.
- GEORGE R. KERR, M.D., Assistant Professor of Pediatrics (1962). M.D., C.M. (1955), Dalhousie University, Halifax, Nova Scotia.
- ELTON KESSEL, M.D., Clinical Instructor in Public Health and Preventive Medicine (1961).
  - B.A. (1940), University of Chicago; M.D. (1952), Chicago Medical School; M.P.H. (1960), Harvard.
- CALVIN H. KIEST, JR., M.D., Clinical Instructor in Orthopedic Surgery (1960). B.S. (1951), Oregon State; M.D. (1955), Oregon.
- A. GURNEY KIMBERLY, M.D., Assistant Clinical Professor of Orthopedic Surgery (1937).
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- FREDERICK A. J. KINGERY, M.D., Assistant Clinical Professor of Dermatology (1959).
  - B.S. (1949), Yale; M.D. (1953), New York University.
- LYLE B. KINGERY, M.D., Clinical Professor Emeritus of Dermatology (1923). B.S. (1912), M.D. (1916), Michigan.
- GERALD E. KINZEL, M.D., Assistant Clinical Professor of Obstetrics and Gynecology (1946). B.A. (1933), M.D. (1936), Oregon.
- EDWARD K. KLOOS, M.D., Clinical Associate in Neurosurgery (1948). A.B. (1934), Western Reserve; M.D. (1938), Rochester; M.S. (1943), Minnesota.
- ROBERT D. KOLER, M.D., Associate Professor of Medicine (1953). B.A. (1945), M.D. (1947), Oregon.
- F. PAUL KOSBAB, M.D., Clinical Instructor in Psychiatry (1962). M.D. (1945), University of Berlin.
- NANCY KOSTERLITZ, M.A., Instructor in Psychiatry (Psychiatric Social Work) (1962).
   B.A. (1945), M.A. (1950), University of Chicago.
- RICHARD H. KOSTERLITZ, M.D., Clinical Associate in Medicine (1958). B.S., M.D. (1949), Illinois.
- LEWIS J. KRAKAUER, M.D., Clinical Associate in Medicine (1956). A.B. (1947), Williams; M.D. (1951), Harvard.
- ALFRED J. KREFT, M.D., Clinical Associate in Ophthalmology (1951). B.S. (1933), M.D. (1936), Illinois.
- PAUL O. KRETSCHMAR, M.D., Clinical Instructor in Medicine (1961). B.S. (1952), South Dakota; M.D. (1954), Illinois.
- MARION L. KRIPPAEHNE, M.D., Assistant Clinical Professor of Medicine (1952). B.S. (1944), University of Washington; M.D. (1948), Oregon.
- WILLIAM W. KRIPPAEHNE, M.D., Associate Professor of Surgery (1953). B.S. (1943), University of Washington; M.D. (1946), Oregon.
- JOHN J. KRYGIER, M.D., Assistant Clinical Professor of Medicine (1943). B.S. (1936), M.D. (1938), Wisconsin.

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- FACULTY
- WALTER J. KUHL, JR., M.D., Clinical Associate in Medicine (1960). B.A. (1944), Whitman; M.D. (1947), Johns Hopkins. CLIFFORD KUHN, M.D., Assistant Clinical Professor of Otolaryngology (1940). B.A. (1928), M.D. (1932), Oregon; M.A. (1943), Pennsylvania. MERLE M. KURTZ, M.D., Clinical Associate in Medicine (1956). B.A. (1949), College of Idaho; M.D. (1953), Oregon. BRUCE N. KVERNLAND, M.D., Clinical Instructor in Neurosurgery (1952). B.A. (1942), Reed; M.D. (1943), Oregon. DANIEL H. LABBY, M.D., Professor of Medicine: Head of Division of Diabetes and Metabolism (1947). B.A. (1935), Reed; M.D. (1939), Oregon. GEORGE H. LAGE, M.D., Assistant Clinical Professor of Obstetrics and Gynecology (1942).B.A. (1936), Oregon State; M.D. (1939), Oregon. WILLIAM M. LAIDLAW, M.D., Clinical Instructor in Medicine (1959). B.A. (1950), Willamette; M.D. (1955), Oregon. DONALD R. LAIRD, M.D., Assistant Clinical Professor of Surgery (1939). A.B. (1928), Grinnell; M.S. (1933), M.D. (1934), University of Chicago (Rush); M.S. (1938), Minnesota. RICHARD A. LALLI, M.D., Instructor in Ophthalmology (1963). B.S. (1954), Oregon State; M.D. (1956), Oregon. ELLERY L. LANDERS, M.D., Clinical Associate in Anesthesiology (1962). B.A. (1930), M.D. (1932), Oregon. EUGENE W. LANDRETH, M.D., Assistant Clinical Professor of Clinical Pathology (1957). B.S. (1946), M.D. (1948), Oregon. LAURENCE R. LANGSTON, M.D., Clinical Associate in Orthopedic Surgery (1956). B.A. (1947), M.D. (1951), Oregon. ALBERT E. LARNER, M.D., Clinical Instructor in Dermatology (1963). B.S.A. (1946), Ontario Agriculture College; M.S. (1948), Toronto; Ph.D. (1955), Michigan; M.D. (1959), Toronto. JOHN A. LARRABEE, M.D., Assistant Clinical Professor of Pediatrics (1948). B.A. (1938), Nebraska; M.D. (1942), University of Chicago. L. WILLIAM LARSON, M.D., Clinical Instructor in Medicine (1959). B.S. (1949), M.D. (1951), Minnesota. ROBERT L. LARSON, M.D., Clinical Instructor in Orthopedic Surgery (1962). B.A. (1949), Montana State University; M.D. (1953), George Washington. WILBUR L. E. LARSON, M.D., Clinical Associate in Medicine (1950). B.A. (1941), M.D. (1945), Oregon. GERALD J. LATTIG, M.D., Assistant Professor of Clinical Pathology (1958). B.S. (1944), Idaho; M.D. (1949), Oregon. GARY H. LEAVERTON, M.D., Clinical Instructor in Surgery (1962). B.S. (1953), M.D. (1955), Oregon. G. PRENTISS LEE, M.D., Clinical Instructor in Surgery (1952). B.A. (1939), Reed; M.D. (1943), Oregon. J. ROBERT LEE, M.D., Associate Clinical Professor of Radiology (1955). B.A. (1944), Willamette; M.D. (1946), Oregon. MARTIN H. LEES, M.D., Associate Professor of Pediatrics (1963). M.D. (1962), London University. THEODORE H. LEHMAN, M.D., Clinical Associate in Urology (1958). B.A. (1948), M.A. (1949), M.D. (1953), Nebraska

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- RICHARD L. LESSEL, Instructor in Public Health and Preventive Medicine (1960). B.S. (1957), University of Washington; M.P.H. (1959), North Carolina.
- HOWARD P. LEWIS, M.D., Professor of Medicine; Chairman of Department (1932).
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- HEROLD S. LILLYWHITE, Ph.D., Professor of Speech Pathology (Pediatrics) (1957).
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- Louis Lino, Ph.D., Associate in Neurology (1958). Ph.D. (1935), Faculty of Natural Sciences, Pisa, Italy.
- CHARLES E. LITTLEHALES, M.D., Clinical Associate in Medicine (1939). B.A. (1932), M.D. (1935), Oregon.
- JAMES H. LIUM, M.D., Associate Clinical Professor of Clinical Pathology (1953). B.S. (1944), M.D. (1946), Oregon.
- WILLIAM K. LIVINGSTON, M.D., Professor Emeritus of Surgery (1925). B.A. (1913), M.A. (1917), Oregon; M.D. (1920), Harvard.
- ERNEST T. LIVINGSTONE, M.D., Assistant Clinical Professor of Medicine (1955). B.A. (1949), Reed; M.S., M.D. (1951), Oregon.
- WALTER C. LOBITZ, JR., M.D., Professor of Dermatology; Head of Division (1959).
  - B.S. (1939), B.M. (1940), M.D. (1941), Cincinnati.
- NORMAN D. LOGAN, M.D., Clinical Instructor in Orthopedic Surgery (1962). B.A. (1951), Oregon State; M.D. (1955), Oregon.
- GEORGE B. LONG, M.D., Associate Clinical Professor of Medicine; Senior Consultant in Gastroenterology (1943).
   B.A. (1934), Montana State University; M.D. (1939), Northwestern.
- JOHN WAYNE LOOMIS, M.D., Assistant Clinical Professor of Radiology (1951). B.A. (1940), Reed; M.D. (1943), Oregon.
- LAWRENCE M. LOWELL, M.D., Assistant Clinical Professor of Cardiopulmonary Surgery (1950).
   B.S. (1933), Washington State; M.D. (1936), Oregon.
- LEE B. LUSTED, M.D., Professor of Radiology (1962). B.A. (1943), Cornell; M.D. (1952), Harvard.
- GEORGE P. LYMAN, M.D., Clinical Associate in Ophthalmology (1954). B.A. (1926), Pomona; M.D. (1931), Yale.
- RICHARD B. LYONS, M.D., Assistant Professor of Anatomy (1961). B.S. (1957), M.S. (1960), M.D. (1960), Oregon.
- J. OPPIE MCCALL, JR., M.D., Assistant Clinical Professor of Obstetrics and Gynecology (1950). B.A. (1938), Hamilton; M.D. (1942), New York University.

ELTON L. McCAWLEY, Ph.D., Professor of Pharmacology (1949). A.B. (1938), M.S. (1939), Ph.D. (1942), California. FACULTY

COLIN W. McCORD, M.D., Associate in Cardiopulmonary Surgery (1961). B.A. (1949), Williams; M.D. (1953), Columbia. GUY R. MCCUTCHAN, M.D., Clinical Associate in Medicine (1939). B.S. (1929), Grand Island; M.D. (1931), Nebraska. LOLITA B. MCELVENY, Assistant Circulation Librarian (Instructor) (1954). LOUIS R. MCKAEL, M.D., Clinical Instructor in Pediatrics (1961). B.S. (1953), Oregon State; M.D. (1958), Oregon. DONALD MCKINLEY, M.D., Clinical Instructor in Psychiatry (1958). B.A. (1940), Reed; M.D. (1942), Oregon. MATTHEW MCKIRDIE, M.D., Associate Clinical Professor of Surgery (1940). B.S. (1929), University of Chicago; M.D. (1934), University of Chicago (Rush). DUNCAN A. MCLAUCHLAN, M.D., Clinical Instructor in Psychiatry (1957). B.S. (1941), University of Washington; M.D. (1944), Oregon. EDWARD N. MCLEAN, M.D., Assistant Clinical Professor of Opthalmology (1957). M.D. (1948), Long Island. RAYMOND A. MCMAHON, M.D., Clinical Associate in Medicine (1938). B.A. (1932), Ripon; M.D. (1937), Wisconsin. LAURENCE K. MACDANIELS, M.D., Clinical Associate in Medicine (1949). B.A. (1937), Reed; M.D. (1941), Oregon. CURTIS A. MACFARLANE, M.D., Clinical Associate in Urology (1958). B.A. (1949), M.D. (1951), Wisconsin. DAVID W. MACFARLANE, M.D., Assistant Clinical Professor of Pediatrics (1956). B.S. (1948), M.S., M.D. (1951), Illinois. STEPHEN W. MAKS, M.D., Clinical Instructor in Medicine (1959). B.S. (1950), University of Portland; M.D. (1953), Creighton. ROBERT W. MARCUM, M.D., Clinical Associate in Surgery (1951). B.S. (1934), Pacific University; M.D. (1940), Oregon. MERL L. MARGASON, M.D., Professor Emeritus of Medicine (1926). A.B. (1920), M.D. (1923), Oregon. F. KEITH MARKEE, M.D., Assistant Clinical Professor of Obstetrics and Gynecology (1952). B.A. (1944), Willamette; M.D. (1946), Oregon. R. KENT MARKEE, M.D., Clinical Instructor in Surgery (1953). B.A. (1944), Willamette; M.D. (1946), Oregon. RICHARD E. MARKLEY, M.D., Clinical Associate in Ophthalmology (1953). B.A. (1938), Denver; M.D. (1942), Colorado. ALFRED N. MARSHALL, M.D., Assistant Clinical Professor of Obstetrics and Gynecology (1957). B.S. (1932), University of Washington; M.D. (1937), Oregon. HARRY W. MASENHIMER, JR., M.D., Clinical Instructor in Medicine (1960). B.A. (1949), Princeton; M.D. (1953), Johns Hopkins. HOWARD S. MASON, Ph.D., Professor of Biochemistry (1952). B.S. (1935), M.S. (1936), Ph.D. (1939), Massachusetts Institute of Technology. JAMES A. MASON, M.D., Clinical Associate in Orthopedic Surgery (1948). B.S. (1930), M.D. (1932), Nebraska. ROBERT E. MASS, M.D., Assistant Professor of Medicine (1957). B.A. (1948), M.D. (1951), Oregon. JOHN CLIFFTON MASSAR, M.D., Assistant Clinical Professor of Dermatology (1955). B.S. (1945), University of Washington; M.D. (1948), Oregon.

- JOSEPH D. MATARAZZO. Ph.D., Professor of Medical Psychology; Chairman of Department (1957). B.A. (1946), Brown; M.S. (1950), Ph.D. (1952), Northwestern.
- RUTH G. MATARAZZO, Ph.D., Assistant Professor of Medical Psychology (1957). B.A. (1948), Brown; M.S. (1952), Ph.D. (1955), Washington University.
- WILLARD L. MATHIESON, M.D., Clinical Instructor in Surgery (1956). M.D. (1945), College of Medical Evangelists.
- ROY R. MATTERI, M.D., Assistant Clinical Professor of Medicine (1946). B.S. (1940), M.D. (1942), Creighton.
- FRED A. MATTHIAS, B.B.A., Business Manager (Associate Professor) (1962). B.B.A. (1949), Oregon.
- GORDON L. MAURICE, M.D., Clinical Associate in Medicine (1949). B.S. (1940), Washington State; M.D. (1943), Oregon.
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- ALLAN G. ROBERTS, M.D., Clinical Instructor in Psychiatry (1962). B.Sc. (1950), University of Wales; M.B., B.Ch. (1953), Welsh National School of Medicine, Cardiff, Wales.
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- FREDERIC W. SMITH, M.D., Assistant Professor of Medicine (1960). B.S. (1947), Kansas State; M.D. (1956), Cornell.
- GEORGE S. SMITH, M.D., Clinical Instructor in Pediatrics (1963). B.S. (1948), M.S. (1958), Minnesota.
- JOHN C. SMITH, M.D., Assistant Clinical Professor of Pathology (1960). B.S. (1950), Oklahoma; M.D. (1954), Johns Hopkins.
- LENDON H. SMITH, M.D., Assistant Clinical Professor of Pediatrics (1951). B.A. (1944), Reed; M.D. (1946), Oregon.
- KENNETH D. SMYTH, M.D., Clinical Associate in Otolaryngology (1957). B.A. (1948), College of Idaho; M.D. (1954), Oregon.
- PHILIP A. SNEDECOR, M.D., Clinical Instructor in Surgery (1958). A.B. (1949), Stanford; M.D. (1953), Oregon.
- VINTON D. SNEEDEN, M.D., Clinical Professor of Pathology (1939). B.A. (1932), Linfield; M.D. (1936), Oregon.
- WILLIAM E. SNELL, M.D., Associate Professor of Orthopedic Surgery; Head of Division (1951).
   B.S. (1943), M.D. (1945), Oregon.
- WILLIAM M. SNOOK, M.D., Clinical Instructor in Pediatrics (1954). M.D. (1949), Virginia.
- JOHN L. SOELLING, M.D., Clinical Associate in Medicine (1953). B.A. (1944), Columbia; M.D. (1946), New York Medical College.
- CHARLES H. SPARKS, M.D., Clinical Instructor in Cardiopulmonary Surgery (1958).
  - B.S. (1944), Montana School of Mines; M.D. (1951), St. Louis.
- WILLIAM ALDEN SPENCER, M.D., Assistant Professor of Physiology (1961), B.A. (1955), Reed; M.S., M.D. (1957), Oregon.
- JAMES T. SPEROS. M.D., Associate Professor of Medicine (1940). B.A. (1931), M.D. (1934), Oregon; M.P.H. (1941), Johns Hopkins.
- JOHN H. SPRINGER, M.D., Clinical Instructor in Pediatrics (1961). B.S. (1953), University of Portland; M.D. (1957), Loyola.
- GEORGE V. SQUIRE, M.D., Clinical Instructor in Medicine (1959). B.A. (1942), Iowa; B.S. (1949), M.D. (1951), Minnesota.
- WALTER R. STAHL, M.D., Clinical Instructor in Radiology (1959). B.S. (1951), Massachusetts Institute of Technology; M.D. (1955), Harvard.
- ALBERT STARR, M.D., Associate Professor of Cardiopulmonary Surgery; Head of Division (1957).
   B.A. (1946), M.D. (1949), Columbia.
- GRIER F. STARR, M.D., Assistant Clinical Professor of Pathology (1959). B.S. (1947), Jamestown; M.D. (1951), Northwestern.
- HOWARD C. STEARNS, M.D., Clinical Professor of Obstetrics and Gynecology (1932).
  - B.S. (1924), M.S. (1925), Oregon State; M.D. (1929), Oregon.
- DAN N. STEFFANOFF, M.D., Clinical Associate in Surgery (1951).
   B.A. (1930), M.D. (1934), D.M.D. (1942), Oregon.
- JOHN W. STEPHENS, M.D., Assistant Clinical Professor of Medicine (1953). B.S. (1939), M.D. (1944), Alberta.
- JANICE R. STEVENS, M.D., Assistant Professor of Neurology (1955). B.A. (1944), Reed; M.D. (1949), Boston University.
- JOHN L. STEVENSON, M.D., Assistant Clinical Professor of Pediatrics (1957). A.B. (1950), Stanford; M.D. (1954), Oregon.

- WILLIAM A. STOTLER, Ph.D., Associate Professor of Anatomy (1946). A.B. (1935), Westminster; M.S. (1937), St. Louis; Ph.D. (1942), Cornell.
- EVELYN M. STRANGE, D.M.D., Clinical Associate in Dental Medicine (1961). D.M.D. (1950), Oregon.
- EUGENE S. SULLIVAN, M.D., Clinical Instructor in Surgery (1959). B.S. (1950), M.D. (1953), Wisconsin
- RALPH R. SULLIVAN, M.D., Clinical Instructor in Dermatology (1951). B.S. (1927), M.B. (1929), M.D. (1930), Minnesota; M.P.H. (1942), Michigan.
- RAYMOND R. SUSKIND, M.D., Professor of Environmental Medicine and Dermatology; Head of Division of Environmental Medicine (1962).
   A.B. (1934), Columbia; M.D. (1943), Long Island.
- KENNETH C. SWAN, M.D., Professor of Ophthalmology; Chairman of Department (1944).
  B.A. (1933), M.D. (1936), Oregon.
- WILLIAM D. SWANCUTT, M.D., Clinical Instructor in Otolaryngology (1962). B.S. (1949), Oregon State; M.D. (1953), Oregon.
- ROBERT E. SWANSON, Ph.D., Associate Professor of Physiology (1961). B.A. (1949), Ph.D. (1953), Minnesota.
- Roy L. SWANK, M.D., Professor of Medicine; Head of Division of Neurology (1953).
  - B.S. (1930), University of Washington; M.D., Ph.D. (1935), Northwestern.
- WILLIAM R. SWEETMAN, M.D., Clinical Instructor in Cardiopulmonary Surgery (1953). B.A. (1940), M.D. (1943), Yale.
- JOHN E. SWETT, Ph.D., Clinical Instructor in Anatomy (1962). B.A. (1956), Washington; Ph.D. (1960), California at Los Angeles.
- WILLIAM J. SWETT, M.D., Assistant Clinical Professor of Medicine (1938). B.A. (1928), Reed; M.D. (1932), Oregon.
- DAVID S. TAKALO, M.S., Clinical Instructor in Medical Technology (1956). B.S. (1941), M.S. (1942), Oregon State.
- THOMAS E. TALBOT, M.D., Assistant Clinical Professor of Ophthalmology (1953). B.S. (1942), Oregon State; M.D. (1945), Oregon.
- ELLEN L. TALMAN, Ph.D., Assistant Professor of Biochemistry (1955). B.A. (1942), Reed; M.S. (1949), Ph.D. (1951), Oregon.
- HOWARD J. TATUM, M.D., Professor of Obstetrics and Gynecology (1958). B.A. (1936), Ph.D. (1941), M.D. (1943), Wisconsin.
- DAVID K. TAYLOR, M.D., Clinical Associate in Medicine (1946). B.A. (1929), College of Idaho; M.D. (1940), Oregon.
- E. MERLE TAYLOR, M.D., Clinical Professor of Ophthalmology (1932). M.D. (1925), Iowa.
- EUGENE E. TAYLOR, M.D., Assistant Professor of Psychiatry (1961).
   B.S. (1942), Idaho; M.D. (1945), Washington University; M.P.H. (1950), North Carolina School of Public Health.
- T. GLENN TEN EYCK, M.D., Assistant Clinical Professor of Otolaryngology (1946).

B.A. (1930), M.D. (1933), Oregon.

- GERALD A. TERMAN, M.D., Clinical Instructor in Ophthalmology (1963). B.A. (1951), Chicago; M.D. (1957), Northwestern.
- WILLIAM O. THOMAS, JR., M.D., Assistant Clinical Professor of Obstetrics and Gynecology (1949).
   B.A. (1937), Dartmouth; M.D. (1941), Harvard.

- BETTY B. THOMPSON, M.D., Instructor in Anesthesiology (1963). B.S. (1956), Lewis and Clark; M.D. (1959), Oregon.
- RICHARD F. THOMPSON, Ph.D., Associate Professor of Medical Psychology (1959).
  - B.S. (1952), Reed; M.S. (1953), Ph.D. (1956), Wiseonsin.
- WILLIAM W. THOMPSON, M.D., Clinical Instructor in Psychiatry (1949). B.S. (1943), Oregon State; M.D. (1945), Oregon.
- ROBERT E. THORNFELDT, M.D., Clinical Instructor in Pediatrics (1963). B.S. (1942), Washington State; M.D. (1945), Northwestern.
- ROBERT H. TINKER, M.D., Clinical Instructor in Surgery (1942). B.S. (1938), B.M. (1940), M.D. (1941), Illinois.
- ROBERT L. TIPS, M.D., Assistant Professor of Pediatrics (1959). B.A., M.A. (1949), Texas; Ph.D. (1952), Notre Dame: M.D. (1956), Texas
- BRUCE L. TITUS, M.D., Assistant Clinical Professor of Otolaryngology (1943). B.A. (1930), M.D. (1934), Oregon.
- WILBERT R. TODD, Ph.D., Professor of Biochemistry (1936). B.S. (1925), Ph.D. (1933), Wisconsin.
- JOSEPH B. TRAINER, M.D., Associate Professor of Physiology and Medicine (1949).
  - B.S. (1939), M.S. (1941), University of Washington; M.D. (1946), Oregon.
- THOMAS A. TREANOR, M.D., Clinical Instructor in Obstetrics and Gynecology (1959).
  - B.A. (1950), Syracuse; M.D. (1954), New York State University.
- JOHN P. TROMMALD, M.D., Assistant Clinical Professor of Surgery (1939). B.S. (1929), Yale; M.D. (1933), Harvard.
- JOHN E. TUHY, M.D., Associate Clinical Professor of Medicine (1948). B.A. (1935), M.D. (1938), Oregon.
- ARCHIE R. TUNTURI, M.D., Associate Professor of Anatomy (1945). B.A. (1939), Reed; M.S. (1943), Ph.D., M.D. (1944), Oregon.
- ALVIN O. UHLE, M.D., Clinical Instructor in Surgery (1955). B.S. (1945), University of Portland; M.D. (1947), Northwestern.
- FRANKLIN J. UNDERWOOD, M.D., Associate Clinical Professor of Medicine (1937). M.D. (1933), Harvard.
- REX J. UNDERWOOD, M.D., Associate Professor of Anesthesiology (1958). B.A. (1950), Stanford; M.S., M.D. (1955), Oregon.
- JOHN T. VAN BRUGGEN, Ph.D., Professor of Biochemistry (1947). B.A. (1937), Linfield; M.A. (1939), Oregon; Ph.D. (1944), St. Louis.
- JOHN G. VANDENBERG, M.D., Clinical Associate in Urology (1953). B.S. (1945), Puget Sound; B.M. (1947), M.D. (1948), Northwestern.
- CECIL A. VAN KLEEK, D.M.D., M.D., Clinical Associate in Dental Medicine (1961). D.M.D. (1951). M.D. (1959). Oregon.
- CLEMENS W. VAN ROOY, M.D., Assistant Clinical Professor of Pediatrics (1958). M.D. (1948), St. Louis.
- WILBUR N. VAN ZILE, D.D.S., Clinical Associate in Dental Medicine (1959). D.D.S. (1928), Southern California.
- CHARLES VARGA, M.D., Assistant Clinical Professor of Pediatrics (1956). B.S. (1939), Rutgers; M.D. (1944), New York Medical College.
- LYLE VEAZIE, Ph.D., Associate Professor of Bacteriology (1942). B.A. (1928), M.A. (1930), Ph.D. (1947), Oregon.

- R. MARK VETTO, M.D., Assistant Professor of Surgery (1959). M.D. (1949), Jefferson; D.Sc. (1959), Cincinnati.
- MARIE K. WAGNER, Assistant Circulation Librarian (Instructor) (1954). B.S. (1940), State Teachers College, West Chester, Pennsylvania.
- SHELDON A. WALKER, M.D., Associate Clinical Professor of Dermatology (1955). M.D. (1942), Iowa.
- GEORGE F. WALLIKER, JR., M.D., Assistant Clinical Professor of Pediatrics (1949). A.B. (1938), Nebraska; B.S. (1940), University of Portland; M.D. (1944), Tennessee.
- JOHN R. WALSH, M.D., Professor of Medicine (1960). B.S. (1943), M.D. (1945), M.Sc.Med. (1951), Creighton.
- JOHN H. WATERMAN, M.D., Clinical Instructor in Psychiatry (1957). B.S. (1929), M.D. (1933), Nebraska.
- CHARLES W. WATKINS, M.D., Clinical Instructor in Dermatology (1958). B.A. (1948), Montana; M.D. (1951), St. Louis; M.S. (1958), Minnesota.
- EDWARD E. WAYSON, M.D., Clinical Associate in Surgery (1952). A.B. (1939), Dartmouth; M.D. (1943), Michigan.
- VIRGINIA L. WEIMER, Ph.D., Assistant Professor of Ophthalmology (1962). B.S. (1944), M.S. (1947), Oregon State; Ph.D. (1951), Pennsylvania.
- FREIDA M. WEINER, M.D., Assistant Professor of Pediatrics (1961). B.S. (1948), M.D. (1952), Illinois.
- ADOLPH WEINZIRL, M.D., Professor of Public Health and Preventive Medicine; Chairman of Department (1937).
   B.S. (1922), M.D. (1925), Oregon; C.P.H. (1932), M.P.H. (1939), Johns Hopkins.
- WARREN S. WELBORN, M.D., Clinical Instructor in Medicine (1956) . B.A. (1949), M.D. (1953), Oregon.
- SEFTON ROBERT WELLINGS, M.D., Associate Professor of Pathology (1961). B.S. (1951), M.D. (1953), University of Washington.
- ALVIN D. WERT, M.D., Associate Clinical Professor of Pediatrics (1946). A.B. (1937), Colgate; M.D. (1941), Minnesota,
- EDWARD S. WEST, Ph.D., Professor of Biochemistry; Chairman of Department (1934).
  - A.B. (1917), Randolph-Macon; M.S. (1920), Kansas State; Ph.D. (1923), University of Chicago.
- JAMES M. WHITELY, M.D., Assistant Clinical Professor of Obstetrics and Gynecology (1943). B.S. (1935), M.D. (1938), Oregon.
- JAMES P. WHITTEMORE, M.D., Assistant Clinical Professor of Pediatrics (1948). A.B. (1942), Holy Cross; M.D. (1945), Harvard.
- ARTHUR N. WIENS, Ph.D., Assistant Professor of Medical Psychology (1958). B.A. (1948), M.A. (1952), Kansas; Ph.D. (1956), University of Portland.
- RICHARD H. WILCOX, M.D., Assistant Clinical Professor of Public Health and Preventive Medicine (1957).
   B.S. (1932), South Dakota; M.D. (1934), Louisville; M.P.H. (1937), Johns Hopkins.
- JAMES W. WILEY, M.D., Clinical Instructor in Surgery (1948). M.D. (1933), Oregon.
- NATHANIEL D. WILSON, M.D., Clinical Associate in Surgery (1953). B.S. (1936), Wheaton; B.M. (1940), M.D. (1941), Northwestern.
- ROBERT D. WILSON, M.D., Clinical Instructor in Medicine (1963). B.A. (1953), Willamette; M.D. (1956), Oregon.

- WILLIAM M. WILSON, M.D., Associate Clinical Professor of Obstetrics and Gynecology (1928).
   B.S. (1920), Whitman: M.D. (1924), Johns Hopkins.
- ZOLTON T. WIRTSCHAFTER, M.D., Associate Professor of Medicine (1953). B.S. (1921), Case School of Applied Science: M.B. (1926), M.D. (1927), Cincinnati,
- \*ROBERT A. WISE, M.D., Clinical Professor of Surgery (1947). B.A. (1922), M.D. (1925), Columbia.
- GORDON T. WOLFE, M.D., Clinical Instructor in Medicine (1959). B.S. (1942), M.D. (1945), Illinois.
- GREGG D. WOOD, M.D., Clinical Instructor in Surgery (1949). B.A. (1939), Reed; M.D. (1943), Oregon.
- JAMES A. WOOD, M.D., Clinical Instructor in Surgery (1963). B.A. (1953), Reed; M.D. (1957), Oregon.
- JAMES V. WOODWORTH, M.D., Clinical Instructor in Medicine (1952). A.B. (1944), Whitman; M.D. (1946), Oregon.
- <sup>†</sup>NORTON B. YOUNG, Ph.D., Instructor in Audiology (Pediatrics) (1960).
   B.S. (1950), M.A. (1953), University of Washington; Ph.D. (1957), Purdue.
- ROBERT W. ZELLER, M.D., Assistant Clinical Professor of Ophthalmology (1951). M.D. (1944), Loyola.
- WERNER E. ZELLER, M.D., Assistant Clinical Professor of Surgery (1946). B.S. (1933), M.S. (1936), M.D. (1937), Oregon.
- WILLIAM A. ZIMMERMAN, B.S., Assistant Dean for Business Affairs (Professor) (1945).
  B.S. (1939), Oregon.

# University of Oregon Medical School Hospitals and Clinics

DAVID W. E. BAIRD, M.D., Dean.

- CHARLES N. HOLMAN, M.D., Associate Dean; Medical Director and Administrator.
- JARVIS GOULD, M.D., Assistant Medical Director and Assistant Administrator.
- Myron R. GROVER, JR., M.D., Assistant Medical Director.
- GWYNN C. BRICE, Administrative Assistant; Assistant Director of Outpatient Clinic.

GEORGE M. AUSTIN, M.D., Chief of Surgery Neurological Service.
DANIEL M. BACHMAN, M.D., Chief of Rheumatology Service.
JOHN A. BENSON, JR., M.D., Chief of Gastroenterology Service.
RALPH C. BENSON, M.D., Chief of Obstetrical and Gynecological Service.
WILLIAM S. CONKLIN, M.D., Chief of Thoracic Surgical Service.
JACKSON T. CRANE, M.D., Chief of Pathological Service.
DAVID D. DEWEESE, M.D., Chief of Radiological Service.
CHARLES T. DOTTER, M.D., Chief of Radiological Service.
J. ENGLEBERT DUNPHY, M.D., Chief of Surgical Service.
MONTE A. GREER, M.D., Chief of Endocrinology Service.
HERBERT E. GRISWOLD, M.D., Chief of Cardiology Service.
FREDERICK P. HAUGEN, M.D., Chief of Anethesiology Service.

#### HOSPITALS AND CLINICS

CLARENCE V. HODGES, M.D., Chief of Urological Service. TYRA T. HUTCHENS, M.D., Chief of Clinical Pathological Service. ARTHUR C. JONES, M.D., Chief of Physical Medicine, DANIEL H. LABBY, M.D., Chief of Metabolic Diseases Service. HOWARD P. LEWIS, M.D., Chief of Medical Service. WALTER C. LOBITZ, JR., M.D., Chief of Dermatological Service, JOSEPH D. MATARAZZO Ph.D., Chief of Medical Psychological Service. HABOLD J. NOYES, D.D.S., M.D., Chief of Dental Medical Service. RICHARD W. OLMSTED, M.D., Chief of Pediatric Service. EDWIN E. OSGOOD, M.D., Chief of Hematology Service. FRANK PERLMAN, M.D., Chief of Immunology, Allergy, and Infectious Disease Service. DONALD M. PITCAIRN, M.D., Chief of Chest Diseases Service. GEORGE SASLOW, M.D., Chief of Psychiatric Service, WILLIAM E. SNELL, M.D., Chief of Orthopedic Surgical Service. ALBERT STARR, M.D., Chief of Cardiopulmonary Surgical Service. KENNETH C. SWAN, M.D., Chief of Ophthalmological Service. Roy L. SWANK, M.D., Chief of Neurological Service. MILDRED BERGHEIM, M.A., M.S.W., Supervisor of Medical Social Service. A. I. CLEMONS, Superintendent of Physical Plant. HILDA E. DRUM, R.T., Chief X-Ray Technician. CLARENCE HULTGREN, M.A., P.T., Chief Physical Therapist. LAURA P. MARTIN, R.N., C.R.L., Chief Record Librarian. MARTORIE P. MAXWELL, B.A., M.T., Chief Medical Technologist. E. H. EMPEREUR, B.S., Chief Pharmacist.

#### University of Oregon Medical School Hospital Doernbecher Memorial Hospital for Children

SHIRLEY M. THOMPSON, M.A., R.N., Director of Nursing Service. BETTY WEIBLE, B.S., R.N., Pediatric Supervisor, MAY RAWLINSON, B.S., R.N., Medical-Psychiatric Supervisor. BEATRICE DUFFY, B.S., R.N., Surgical Supervisor. ELEANOR MALLORY, R.N., Surgery Supervisor. DOROTHY CAHILL, R.N., Auxiliary Personnel Supervisor. EVELYN BARTON, R.N., Night Supervisor. GERTRUDE BERGQUIST, R.N., Assistant Night Supervisor. OPAL MCCRAE, R.N., Assistant Night Supervisor. HELEN FOUNTAIN, R.N., Evening Supervisor. LOIS LAUZIERE, B.S., R.N., Evening Supervisor. ROSELLA SCHMIDT, B.S., R.N., Assistant Evening Supervisor. MARIA BOULETTE, B.S., R.N., Head Nurse. ADA CARSON, R.N., Head Nurse. PEGGY COOKE, R.N., Head Nurse. BETTY IO EDDINS, R.N., Head Nurse. SANDRA GAHMAN, R.N., Head Nurse. FREDERICKA GRABLE, R.N., Head Nurse. MABELL SMITH. M.S., R.N., Head Nurse. DORIS STITELY, R.N., Head Nurse. MAXINE SUTTON, R.N., Head Nurse, FLORENCE SWEENEY, R.N., Head Nurse. REGINA MOCKMORE, B.S., R.N., Head Nurse.

<sup>\*</sup> On leave of absence; Adviser in Surgery, Faculty of Medicine, Chiengmai, Thailand. † On leave of absence at Johns Hopkins University School of Medicine.

46

PAULINE ANDERSON, B.S., R.N., Admitting Supervisor.
GLEN F. CRITESER, Laundry Manager.
MAXINE FREEMAN, Executive Housekeeper.
MARGARET ORTH, B.S., Dietitian.
BERNICE J. SEE, B.S., O.T.R., Psychiatric Occupational Therapist.
MADELINE MYERS, Accounting Office Supervisor.

#### **General Outpatient Service**

MARJORIE R. MERRICK, B.S., Chief Admitting Officer. MARIAN W. PARSELL, B.S., R.N., Director of Nursing Service. NANCY W. BESHEAR, B.S., Dietitian.

#### Multnomah Hospital

JARVIS GOULD, M.D., Administrator and Assistant Medical Director. MYRON R. GROVER, JR., M.D., Assistant Administrator and Assistant Medical Director. GALE RANKIN, B.S., R.N., Director of Nursing Service. MARGARET FOX, R.N., Assistant Director of Nursing Service. BARBARA BROWNE, B.S., R.N., Supervisor. DOROTHY VOSSEN, B.S., R.N., Supervisor. ARDYS HOKENESS, R.N., Supervisor. LAVERNE HONEY, R.N., Supervisor. LORRAINE NELSON, B.S., R.N., Clinical Instructor. **JUNE SATCHFIELD**, B.S., R.N., Supervisor. ALICE SHARF, R.N., Surgical Supervisor. EMMA H. MCWILLIAMS, R.N., Supervisor. JEAN CALDWELL, B.S., R.N., Head Nurse, SHIRLEY FRANZEN, R.N., Head Nurse. ESTHER HENDERSON, R.N., Head Nurse. JUDITH HICKS, R.N., Head Nurse. LEANN POOLE, R.N., Head Nurse. MARY RICHESON, R.N., Head Nurse. JEAN SCHROPFER, B.S., R.N., Head Nurse. BERNICE SETERE, B.S., R.N., Head Nurse. CAROL SLAMA, R.N., Head Nurse, BEVERLY WARD, R.N., Head Nurse, HELEN COLGAN, Ph.G., Pharmacist. HENRY L. DOENEKA, Chief Engineer. DAVID E. ANDERSON, Office Supervisor. RAMONA MCAFEE BENNETT, B.S., R.N., Housekeeper. RUTH MERCER, M.A., Dietitian, Clinical Instructor in Dietetics.

#### **Oregon State Tuberculosis Hospital**

BARBARA HIATT, M.S., R.N., Assistant Administrator. WILLIAM S. CONKLIN, M.D., Chief of Staff. JAMES T. SPEROS, M.D., Medical Consultant. ROBERT D. MICHEL, M.D., Chief Physician. CLIFFORD A. FRATZKE, M.D., Physician. SIDNEY BROWNSTONE, M.D., Physician. DAVID T. MCKEOWN, B.A., Business Manager. ELIZABETH MACINTOSH, R.N., Director of Nursing Service. KAREN VIELSDORF, B.S., Dietician. ARNALD BRADSHAW, HOUSEKeeper. CARL W. LACY, Superintendent of Physical Plant.

#### Visiting Physicians' Service

RANDALL F. WHITE, M.D., Multnomah County Physician. HAROLD W. DOBBIN, M.D., Physician. ANTON D. ELMER, M.D., Physician. DONALD P. McGREEVEY, M.D., Physician. WILLIAM R. OLSON, M.D., Physician. JAMES L. SCHNELLER, M.D., Physician.

#### **Crippled Children's Division**

RICHARD L. SLEETER, M.D., Director; Professor of Pediatrics. VICTOR D. MENASHE, M.D., Assistant Director; Assistant Professor of Pediatrics. HEROLD S. LILLYWHITE, Ph.D., Professor of Speech Pathology. S. GORHAM BABSON, M.D., Associate Professor of Pediatrics. JOHN C. ROTH, M.D., Associate Professor of Anethesiology. WILLIAM E. SNELL, M.D., Associate Professor of Orthopedic Surgery. ROBERT W. BLAKELEY, Ph.D., Assistant Professor of Speech Pathology. RICHARD M. ADAMS, D.M.D., Assistant Professor of Dentistry. RODNEY K. BEALS, M.D., Assistant Professor of Orthopedic Surgery. C. CONRAD CARTER, M.D., Assistant Professor of Neurology. EUGENE E. TAYLOR, M.D., Assistant Professor of Psychiatry. LAURENCE R. LANGSTON, M.D., Clinical Associate in Orthopedic Surgery. JOHN S. GULLICKSON, D.D.S., Assistant Professor of Dentistry. RUTH M. DUPUIS, M.S., Instructor in Speech Pathology. \*Norton B. Young, Ph.D., Instructor in Audiology. GLADYS BELL, A.B., A.C.S.W., Medical Social Consultant. SHIRLEY BUXTON, M.S.W., Medical Social Consultant. RUTH W. SPOERLI, M.S.S., A.C.S.W., Medical Social Consultant. DOROTHY M. PRINZING, M.A., R.N., R.P.T., Nursing Consultant. IDA SUE UNDERWOOD, R.N., Public Health Nurse. IRENE A. BACON, B.S., R.P.T., Physical Therapist. RUBY FIELDS, R.P.T., Physical Therapist. SUSAN FORD, R.P.T., Physical Therapist. VIRGINIA R. HATCH, B.S., Occupational Therapist. SHARON MAGUIRE, B.S., Occupational Therapist. MARGARET A. COSTELLO, Administrative Assistant.

#### Cerebral Palsy Project (Collaborating Faculty Members)

RALPH C. BENSON, M.D., Professor of Obstetrics and Gynecology.
RICHARD W. OLMSTED, M.D., Professor of Pediatrics.
RICHARD L. SLEETER, M.D., Professor of Pediatrics.
HOWARD J. TATUM, M.D., Professor of Obstetrics and Gynecology.
S. GORHAM BABSON, M.D., Associate Professor of Pediatrics.
WILLIAM M. CLARK, JR., M.D., Associate Professor of Pediatrics.
RUDOLPH C. H. ENGEL, M.D., Associate Professor of Pediatrics.

#### MEDICAL SCHOOL

48

L. PAUL RASMUSSEN, M.D., Associate Professor of Pediatrics.
BRUCE V. BUTLER, M.D., Assistant Professor of Medical Psychology.
JOHN O. KANGAS, Ph.D., Assistant Professor of Medical Psychology.
WILLIAM W. ORNDUFF, M.D., Assistant Professor of Pediatrics.
FRANK SHUBECK, M.D., Assistant Professor of Obstetrics and Gynecology.
FRIEDA M. WEINER, M.D., Assistant Professor of Pediatrics.
WARREN H. FAY, Ph.D., Instructor in Speech Pathology (Pediatrics).
KATHRINE S. FRENCH, Ph.D., Instructor in Anthropology (Pediatrics).
RICHARD L. LESSEL, M.P.H., Instructor in Public Health and Preventive Medicine.
BARBARA GOFFENEY, M.A., Research Assistant in Psychology.

# **General Information**

THE UNIVERSITY OF OREGON MEDICAL SCHOOL is located in Portland (population 370,906), the largest city in the state of Oregon. Situated on the Willamette River near its junction with the Columbia River, Portland is a city of diverse business and industrial activities and, although 85 miles from the Pacific Ocean, an important seaport. The city is well-known for its beautiful homes, parks, and boulevards and for its mild climate. The foothills of the Cascade Mountains rise on the outskirts of Portland; Mount Hood, one of the major peaks of the range, towers on the southeastern horizon.

# History

MEDICAL EDUCATION in the Pacific Northwest had its beginnings in 1867 when courses and lectures were offered to medical students by the medical department of Willamette University in Salem. After ten years of operation it was decided that the medical department should move to Portland, where the metropolitan advantages of greater population and more hospitals would aid in providing a more complete teaching program.

During this period a group of Portland physicians petitioned the Board of Regents of the University of Oregon to grant a charter for a medical school to be located in Portland. In 1887 the charter was granted and the University of Oregon Medical School became a reality—in a two-room building in northwest Portland.

In 1895 the Willamette University medical department returned to Salem. Because of the limited facilities in that city and the lack of funds to continue operation, it merged with the University of Oregon Medical School in 1913. Under terms of the merger, the students of Willamette's medical department were transferred to the University of Oregon Medical School and received diplomas indicating the consolidation. At the same time the alumni groups also merged.

In 1919 the Medical School moved to its present campus, on a 101-acre tract in Sam Jackson Park overlooking the city of Portland—away from the congested area but within one and one-half miles of the business district. The original tract included 20 acres donated in 1914 by the Oregon-Washington Railroad and Navigation Company and 88 acres given by the late Mrs. C. S. Jackson and the late Philip Jackson in memory of C. S. Jackson, publisher of the *Oregon Journal*. In 1958, the Oregon State Board of Higher Education accepted the gift of an additional 27 acres from the Journal Publishing Company.

Because the location provided an ideal setting for medical center buildings and affiliated units, the University of Oregon Medical School in 1920 conveyed to Multnomah County 9 acres of the campus for the construction of a general charity hospital; in 1926 a 25-acre tract was deeded to the United States government as the site of the U.S. Veterans Hospital.

From 1919 to the present, great advances have been made in the development of the Medical School. The depth and scope of its various programs have continued to expand until today the school has a beautiful campus, fine hospitals, clinics and an excellent faculty.

# **Physical Facilities**

THE PHYSICAL FACILITIES of the University of Oregon Medical School are valued at more than \$23,000,000, and are keeping pace with the school's expanding programs of education, research and public service.

50

#### GENERAL INFORMATION

The First Medical Science Unit (1919), a three-story structure, was financed through an appropriation of \$110,000 by the 1917 State Legislature and by cash donations amounting to \$25,000 from Portland citizens. Mackenzie Hall (1922), the second unit of the Medical Science Building, was financed through an appropriation of \$113,000 by the 1921 State Legislature, matched by an equal appropriation from the General Education Board of New York. Named in honor of the late Dean Kenneth A. J. Mackenzie, the building is four stories high, similar in construction to the first unit, but has twice its capacity. An additional \$50,000 was appropriated by the General Education Board for equipment.

The Outpatient Clinic (1931), open to patients throughout the state of Oregon who are unable to obtain medical care elsewhere, affords teaching facilities for the clinical branches of the Medical School. Approximately 195,000 patient visits are recorded annually. Funds for the construction of the building were provided through a gift of \$400,000 from the General Education Board of New York. The Outpatient Clinic had its origin in the Portland Free Dispensary founded in 1907 by the People's Institute, a private philanthropic institution. The dispensary affiliated with the Medical School in 1909 and moved to the campus in 1931.

Multnomah Hospital (1923, 1950), constructed through funds supplied by Multnomah County, has a capacity of 295 beds with facilities for general, medical, surgical, and obstetrical patients. The Multnomah Hospital group includes the Heating Plant (1923) and the Emma Jones Nurses' Dormitory (1927). Under terms of a contractual arrangement between the commissioners of Multnomah County and the Oregon State Board of Higher Education, the Medical School has access to the hospital for teaching purposes, and the professional staff of the hospital is appointed by the Medical School. This arrangement provides a most successful affiliation for teaching, research and care of the sick.

The University State Tuberculosis Hospital (1939) has an 80-bed capacity and a large outpatient unit, the Julius L. Meier Memorial Clinic. The hospital has medical and surgical facilities for teaching medical students, interns, residents, and nurses. Funds for the hospital were provided through a state appropriation of \$110,000, a Public Works Administration grant of \$130,900 and a gift from Mrs. Grace R. Meier, Mrs. Jack Meier, Mrs. Joseph Ehrman, Jr., and Mrs. Frederick Ganz, in memory of Julius L. Meier.

The Library and Auditorium (1939) was erected through a gift of \$100,000 from Dr. John E. Weeks, a gift of \$100,000 from the Rockefeller Foundation, and a grant of \$163,500 from the Public Works Administration. The Auditorium, with a seating capacity of 600, affords facilities for lectures and scientific meetings.

The Medical School Library, with stacks providing shelving space for 100,000 volumes, which may be expanded to accommodate an additional 100,000 volumes, contains more than 96,000 volumes of books and bound periodicals, as well as a large number of unbound periodicals. Approximately 1,500 current periodicals are received. Through the privileges of interlibrary loan and micro-film service, it is possible to obtain within a few days materials not contained in this collection. The Library has been enriched through many valuable gifts of books and periodicals from individuals and organizations. Members of the Women's Auxiliary of the Oregon State Medical Society and other friends of the Medical School aid in assembling books and objects of medical-historical interest. The Oregon State Board of Medical Society contribute to the annual operating fund. Public acknowledgement of gifts to the Library is made in a printed list in the annual Commencement program.

Students are given a survey of the resources of the Library and instruction in their uses in four lectures delivered by the librarian during the first and second years of their medical course.

#### PHYSICAL FACILITIES

The Nurses' Dormitory (1943), formerly the Portland Medical Hospital, was purchased in 1943 to provide needed housing facilities for students in the School of Nursing. This dormitory accommodates 110 students.

The Laboratory and Administration Building (1949) was financed through a state appropriation of \$663,000. The building houses facilities for the basic science departments, together with administrative offices for the Medical School.

The Physical Plant Shop and Warehouse (1953), provides shop facilities and a central warehouse for the Physical Plant Department. The building was financed by a state appropriation of \$71,000. A \$48,000 addition to the structure was added in 1958 to provide space for a centralized tabulating service operated by the State System of Higher Education Comptroller's Office. A second addition to the building, costing \$200,000, completed in June 1960, provides additional space for the tabulating service, expanded storage facilities, and space for the Medical School's Printing Department.

The Crippled Children's Division Building (1954) has modern office space and clinical facilities for the statewide crippled children's service administered by the Medical School. It was financed through a \$280,000 appropriation approved by the 1953 Legislature.

The University of Oregon Medical School Hospital (1955), a 270-bed teaching and research hospital, was completed in the fall of 1955 at a cost of approximately \$6,300,000. Funds for the construction of the hospital were provided principally from state appropriations, supplemented by several gifts and grants. The hospital contains 128 beds for general, medical, and surgical patients, 29 beds for psychiatric care, and 113 beds for pediatrics (Doernbecher Memorial Hospital for Children).

The original Doernbecher Memorial Hospital for Children was built in 1926. It was financed through a gift of \$200,000 by Mrs. E. W. Morse and Edward Doernbecher, in memory of their father, the late F. S. Doernbecher, and by other gifts totaling \$120,000. The original hospital building was remodeled in 1957 at a cost of \$366,779 for clinical laboratory facilities, departmental offices, clinic facilities, and student teaching laboratories.

The *Student Activities Building* (1960), built at a cost of \$358,000, is a twostory structure providing recreational facilities for all student groups on the campus.

The Medical Research Laboratories Building (1962), built at a cost of \$2,611,955, was financed through a state appropriation and matching funds from the National Institutes of Health, U. S. Public Health Service. The entire nine-story building is used for medical research.

The 1963 Oregon Legislature transferred operation of the *Oregon State Tuberculosis Hospital* at Salem to the State Board of Higher Education under direct jurisdiction of the Medical School. The hospital has 160 beds and is equipped for the medical and surgical treatment of patients with tuberculosis. It is operated as one of the units of the Medical School Hospitals and Clinics.

Although not a part of the physical facilities of the University of Oregon Medical School proper, the U. S. Veterans Administration Hospital, located adjacent to the campus, serves as one of the teaching units of the Medical School. Established in 1928, this government-owned facility has 555 beds. The teaching program includes clinical experience for medical students as well as advanced residency programs. Coordinating the residency program is the Dean's Committee for the Portland Veterans Administration Hospital.

Construction of two additional buildings on the Medical School campus was completed in 1962: new headquarters for the Portland Center for Hearing and Speech, adjacent to the Crippled Children's Division Building, and a fire station, erected by the city of Portland on a site near the Veterans Hospital.

# Philosophy and Objectives

MEDICINE is such a broad and extensive field that it is difficult in four years of the medical school to teach the student all that is required for the practice of medicine. The objective of a medical education is to enable the student to acquire the requisite amount of basic factual material, a desire to continue his education as long as he remains active or interested in medicine, the ability to evaluate objectively current trends and new advances in medicine, and the attitudes and ideals that are implied in accepting medicine as a "way of life" rather than merely a way of earning a living. The student must understand that high ethical standards are required in both his personal and professional conduct. The over-all education of a physician should not only make him proficient in the science and art of medicine, but should also fit him to assume effectively the civic and social responsibilities associated with his position in the community.

The student is not expected to learn all the skills of any specialty in medical school, but should acquire the fundamentals which will enable him, with further training, to enter any field of general or specialty practice, research, or teaching.

# Accreditation

THE UNIVERSITY OF OREGON MEDICAL SCHOOL is one of 88 accredited schools of medicine in the United States. It is approved by the American Medical Association and by the Association of American Medical Colleges. Its residency programs have been approved by the Council on Medical Education and Hospitals of the American Medical Association and by the respective American boards (see page 103). In addition, special programs are approved by the American Dietetic Association, the Council on Medical Education and Hospitals of the American Medical Association, the American Registry of X-Ray Technicians, and the Registry of Medical Technologists of the American Society of Clinical Pathologists.

# Administration and Faculty

ALTHOUGH THE MEDICAL SCHOOL, chartered by the Board of Regents of the University of Oregon in 1887, has administrative and faculty autonomy, the academic position of the school as an integral part of the University of Oregon is established in its charter and is recognized under the organizational plan of the Oregon State System of Higher Education. A legislative act more than thirty years ago combined all of Oregon's state-operated institutions of higher education into the Oregon State System of Higher Education, which is administered by a nine-member lay board appointed by the Governor. The Chancellor is the chief executive officer.

The Medical School has 165 full-time faculty members serving in its basic and clinical science departments and approximately 500 clinical faculty members who practice in Portland and the surrounding area and who donate a portion of their time to the teaching and research programs of the Medical School.

# Instruction

THE UNIVERSITY OF OREGON MEDICAL SCHOOL provides a standard undergraduate curriculum leading to the degree of Doctor of Medicine. This program begins with an introduction to the normal structure and function of the human body, and continues in the second year with a study of the effects of disease and the methods of diagnosis of disease. The clinical portion of the student's program is largely concentrated in the third and fourth years; much of this training is taken in the wards of the school's hospitals and in the Outpatient Clinic, where students learn under careful supervision and guidance how to apply their scientific knowledge to the care of patients and the prevention of disease.

The Medical School also offers a special five-year program of study for outstanding students leading to both the medical degree and the Master of Science degree. This program, offered through the basic science departments of the Medical School—anatomy, bacteriology, biochemistry, pathology, pharmacology, physiology, and medical psychology—is open to a few selected students each year. A student enters the five-year program after completing the first two years of medicine, and then pursues a combined course of medical and graduate studies. Such students spend three summers and a part of the regular academic years in graduate study. This program affords an unparalleled opportunity for review and consolidation of basic science concepts at a time when the student has had sufficient clinical training to enable him better to appreciate the importance of the basic sciences in relation to clinical medicine. It provides research experience and advanced basic science training desirable for students expecting to enter medical research and teaching as a career and a superior scientific background for clinical medicine.

Five-year medical students assist with teaching in medical laboratory courses during the school year, and with research. In recognition of the value of such students to the departments concerned, and of the necessity of postponing the acquisition of the M.D. degree, such "student assistantships" are accompanied by remunerations.

The Medical School also offers regular programs of graduate work leading to the Master of Science and Doctor of Philosophy degrees, in the basic sciences, and conducts training programs for residents and interns in the school's hospitals and clinics.

The University of Oregon School of Nursing provides an important instructional program on the Medical School campus. Courses in medical technology and X-ray technique, a one-year internship in dietetics, and a clinical affiliation in occupational therapy also are offered. Each year the Medical School conducts an extensive postgraduate program for physicians of the states of the Pacific Northwest, British Columbia, and Alaska (see also page 103).

### Research

ALTHOUGH THE PRIMARY PURPOSE of the University of Oregon Medical School is teaching medical students the science and art of medicine, another and equally important function is medical investigation into the causes and treatment of disease.

In the world-wide struggle to improve the health and happiness of mankind, millions of research dollars are expended annually in the nation's medical schools. Oregon is no exception. Investigations under way at the Medical School are supported by gifts and grants amounting to nearly \$4,000,000 annually. These funds are made available by private individuals and industry, by foundations and societies, and by the state and Federal governments.

Currently, over 200 research projects are being conducted at the school in virtually every area of medicine. Contributions made by University of Oregon Medical School investigators to medical knowledge have been numerous and have received world-wide recognition.

# Medical Research Foundation

THE MEDICAL RESEARCH FOUNDATION OF OREGON was incorporated in 1942 as a nonprofit organization for the support of medical education and medical research. The foundation is administered by a board of trustees selected from the executive faculty and alumni of the University of Oregon Medical School, the Portland Academy of Medicine, the Oregon State Medical Society, and private citizens. The foundation's income is derived from gifts, grants, bequests, and United Funds. The funds are administered by the trustees. Grants are awarded on the basis of recommendations from the Research Committee of the Medical School. Funds received for specific purposes are administered in accordance with the wishes of the donors. During 1962, the foundation spent over \$2,900,000 for medical education and medical research.

The offices of the foundation are located on the campus of the University of Oregon Medical School.

# Alumni Association

FOUNDED in 1913, the Alumni Association of the University of Oregon Medical School also includes graduates of the Willamette University department of medicine. The association is devoted to the interests of students and graduates and to the encouragement of scientific and professional progress among members of the Medical profession generally. Its membership numbers more than 2,000. In the spring of each year, the Alumni Association sponsors a three-day scientific meeting on the Medical School campus with about 400 registrations. The Office of Public Affairs maintains alumni records and administers Alumni Association activities. Alumni Association officers for 1963-64 are:

Dr. JOHN O. BRANFORD, '46, Portland	President
DR. I HOMAS R. MONTGOMERY, '32. Portland	Vice President
DR. JULES F. BITTNER, '47, Pendleton	Vice President
DR. FREDERICK L. CODDINGTON, '42, Reno	Vice President
DR. MURRAY L. JOHNSON, 39, Tacoma	Vice President
DR. JAMES A. KILEY, '43, Corvallis	Vice President
DR. JOYLE O. DAHL, '30, Portland	Secretary
DR. IVAN I. LANGLEY, '43, Portland	Troponer
JOSEPH J. ADAMS, Portland	Executive Secretary

# Student Organizations

Student American Medical Association. Medical students have an opportunity to join the Student American Medical Association (SAMA), a national medical student organization. The purpose of SAMA is to represent medical student interests on a national scale. Membership is voluntary and on an individual basis. Locally, SAMA, in addition to planning student activities, sponsors an all-campus activities calendar, scientific noon-hour programs, and a part-time employment file for medical students and their wives. It also makes available to students life and hospital insurance programs. Annual dues include a subscription to the SAMA publication, the *New Physician*.

Alpha Omega Alpha. Alpha of Oregon chapter of Alpha Omega Alpha, medical college honor society for both men and women, was installed at the University of Oregon Medical School in 1923. The aims of the society are the promotion of scholarship among medical students and the encouragement of high standards of character and conduct. Selection for AOA is made by the active members each spring from the junior and senior classes on the basis of scholastic achievement and character.

**Fraternities.** There are three medical fraternities for men at the University of Oregon Medical School—Alpha Kappa Kappa, Nu Sigma Nu, and Phi Beta Pi.

Women students are members of the Oregon section of the American Medical Women's Association.

Alumni of these groups take an active interest in their affairs, and the association of alumni, faculty, and student members constitutes an important benefit of membership.

**Christian Medical Society.** The Christian Medical Society (CMS) a nondenominational organization, holds discussion meetings every other week and social gatherings once a month. Students of any religious persuasion are invited to attend these meetings.

Junior Medical Auxiliary. During the school year wives of medical students meet twice each month for social activities and welfare projects. A program of interest to all members is scheduled for each of the monthly business meetings. Smaller groups "social clubs," also meet once a month. Membership in the auxiliary is about 150.

Interns and Residents Auxiliary of Portland. Wives of interns and residents in Portland hospitals meet each month for a program, social activities, and the planning of service projects. Meeting place is rotated among the Portland hospitals.

# Social Activities and Athletics

GENERAL INVITATIONS are extended to all students to attend special lectures and meetings in the Medical School Auditorium. Notices of these events are posted on student bulletin boards. Several traditional dances and fraternity get-togethers are planned each year by medical student organizations. An annual freshman reception in the fall and a reception for graduates following Commencement ceremonies are given by the Faculty Wives' Club. All students have access to Portland's metropolitan cultural advantages.

Because of enrollment limitations each year and the highly specialized and concentrated nature of medical subjects, the Medical School is unable to sponsor athletics, officially. However, students may participate in an intramural sports program.

The Student Activities Building, providing recreational and athletic facilities for the use of all students on the campus, was opened in the summer of 1960.

# Housing

WHILE NO FACILITIES FOR HOUSING students are provided by the Medical School, many apartments and boarding houses are located close to the campus. An up-to-date list of vacancies in apartments and boarding houses is maintained on the Student Bulletin Board in the Administration Building.

### Student Health Service

A STUDENT HEALTH SERVICE, maintained by the Medical School, provides care for acute diseases and is available for counseling. Preventive as well as therapeutic services are provided. Hospitalization for a maximum of fifteen days per academic year is available for emergency medical or surgical conditions only.

Coverage by the Health Service is available if the student is registered for 7 hours or more credit in the current term and has paid the Health Service fee. There is no provision for care of student's dependents and no provision for elective surgery. All married students are strongly advised to carry some form of hospital insurance, available at low cost from the Medical Book Store.

Detailed information is provided in the Health Service pamphlet and at the Registrar's Office. All students should obtain copies when they register.

## Fellowships, Scholarships, Prizes, Loan Funds

THE MEDICAL SCHOOL has available a limited number of scholarship and fellowship funds for deserving medical students. Applications for scholarships should be filed in the Registrar's Office by March 1 of each year. Scholarships are awarded by the dean upon the recommendation of the Committee on Scholarships of the faculty of the Medical School.

Noble Wiley Jones Pathology Research Fellowship. This fellowship, established in 1919, consisting of the interest on \$5,000 held in trust, is the gift of Dr. Noble Wiley Jones of Portland. It is awarded annually to a medical student or resident on the basis of scholastic ability, training in pathology, and interest in research in this field.

Summer Student Research Fellowships. A number of fellowships are available to selected medical students for summer research in both basic science and clinical departments. These fellowships provide the opportunity to gain first-hand experience in medical research under the supervision of experienced investigators. Application must be made to the chairman of the department concerned prior to April 1 preceding the summer for which the fellowship is to be awarded. Most of the funds for summer fellowships are provided through grants from the National Institutes of Health. Other fellowships are provided by Lederle Laboratories Division of the American Cyanamid Company and the Tobacco Industry Research Committee.

**Frank Ralston Research Student Assistantship.** This assistantship was established in 1946 through a gift of \$5,000 from Dr. Frank Ralston. Since that time additional gifts have increased the principal of the fund to approximately \$13,000. The funds are devoted to research in glaucoma under the direction of the chairman of the Department of Ophthalmology.

Dr. Laurence Selling Student Research Scholarships. The Selling Scholarship Fund was established in 1957 through a gift of approximately \$200,000 from an anonymous donor. The income is to be used for student research scholarships at the Medical School. Students are recommended for the award by a committee SCHOLARSHIPS AND AWARDS

of the faculty, and the awards are based on scholastic ability and research promise. Awards are limited to students participating in the five-year program. (See page 102, Five-Year Program.)

Kenneth A. J. Mackenzie Memorial Scholarship. Five \$200 scholarships are awarded annually for the study of medicine, in accordance with the following plan; one \$200 scholarship is awarded each year to the outstanding premedical student at the University of Oregon in the last year of his premedical studies; if the student enters the University of Oregon Medical School and continues to maintain a high scholastic record the scholarship is renewable for each of his four years of medical training; if the student does not maintain a high scholastic record at the Medical School, his scholarship is transferred to the outstanding member of his Medical School class who has taken his premedical work at the University of Oregon. The scholarships are a memorial to Dr. Kenneth A. J. MacKenzie, former dean of the Medical School; they are endowed through a bequest from the late Mrs. Mildred Anna Williams.

**Pohl Memorial Scholarships.** These scholarships were endowed in 1936 by a gift of \$5,000 from Dr. Esther Pohl Lovejoy, in memory of her husband, Dr. Emil Pohl, and her son, Frederick Clayson Pohl. The original gift has been supplemented by additional annual donations from Dr. Lovejoy, which have increased the endowment to about \$37,000. Awards are made to students of promise in the field of medicine. Two-thirds of the scholarships are given to men students, onethird to women students.

James P. Griffin Scholarships. Three \$500 scholarships are awarded each year from a fund established in 1959 through a bequest from Mrs. James P. Griffin in memory of her husband. Awards are made to worthy and promising medical students on the basis of need and scholastic attainment.

State Scholarships. In accordance with special authorization from the Legislature, the State Board of Higher Education awards annually a limited number of scholarships to students in the institutions of the State System who are residents of Oregon, who rank high in scholastic attainment, and who need financial assistance. These scholarships cover tuition. Recipients must pay the building fee, the incidental fee, and special fees.

George H. Strowbridge Memorial Scholarship. This scholarship consists of the income from a bequest of \$5,000 from Mary S. Muellhaupt in memory of Dr. George H. Strowbridge, a graduate of the University of Oregon Medical School in the Class of 1897. Award is made to a student of the second-, third-, or fourth-year class on the basis of scholastic attainment and need.

Pfizer Laboratories Medical Scholarship. This \$1,000 scholarship, established in 1962, is awarded to a deserving student on the basis of scholastic record and financial need.

Jackson Foundation Scholarship. An award of \$1,000 is made to a medical student who graduated from an Oregon secondary school, who has the ability to do high quality work in the Medical School, and who is in need of financial assistance. The scholarship was established in 1962.

Emily F. Edson Scholarships. Scholarships are awarded to both medical and nursing students, on the basis of scholastic achievement and need, from a fund established through a bequest under the will of the late Emily F. Edson, administered through The Oregon Bank. The initial bequest, in 1962, was approximately \$54,000. 57

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Emily F. Edson Scholarships. Scholarships are awarded to both medical and nursing students, on the basis of scholastic achievement and need, from a fund established through a bequest under the will of the late Emily F. Edson, administered through The Oregon Bank. The initial bequest, in 1962, was approximately \$54,000. Joan Balise Memorial Loan Fund. This fund was established in 1960 in memory of the late Joan Balise by her husband, to provide emergency loans to medical students. The fund at present totals approximately \$1,150.

So Chee Sue Scholarship Loan Fund. This fund was established in 1959 by Dr. Julius F. Sue in memory of his father, So Chee Sue, as a perpetual loan fund for senior medical students. The fund now amounts to approximately \$1,050.

American Medical Association Loan Fund. The American Medical Association has established a loan fund which provides substantial loans to medical students, interns, and residents, with provision for repayment over a period of several years. Information regarding the fund is available in the Medical School Business Office.

#### ADMISSION TESTS

# Academic Requirements and Regulations

# Admission Requirements

High School Preparation. The applicant must have satisfactorily completed a four-year course in an accredited high school or its equivalent.

Premedical Requirements. Because there is no single course of study which best prepares a person for medicine, the student planning to enter medical school should obtain a thorough, sound general education and emphasize in college those fields in which he has the greatest personal interest, whether they be in the sciences or in the liberal arts. It is essential that a good basic preparation in the fundamentals of chemistry, physics, and biology be obtained; but, with this training, a student whose major undergraduate interest lies outside the biological or physical sciences should have adequate scientific preparation for medicine. Intensive scientific specialization will come soon enough, when the student enters the Medical School. While this specialization is necessary in Medical School, it is exceedingly important that the future physician in training remain constantly aware of the fact that the practice of medicine involves working with all kinds of people in many and complex social relations. For this reason, preparation for a career in medicine is inadequate if limited largely to scientific subjects. Because of their eventual responsibilities in human relationships, students have need for a broad liberal education. As we learn more of man and his reactions, it becomes obvious that social, economic, and other environmental factors have much to do with his physical and mental health.

Certainly, a student with a primary interest in biology, chemistry, or physics should not be discouraged from pursuing such studies as a major course in his undergraduate career. It is not desirable, however, to take courses in college which will be duplicated in medical school (human anatomy, biochemistry, human physiology, medical bacteriology, etc.). A student is better prepared for medicine if he takes more basic science courses or work in other fields such as mathematics and the social and behavioral sciences. Premedical education, then, should be planned to include not only adequate scientific preparation, but also the type of broad education which leads to an understanding of the world in which we live. The three or four years in college should be looked upon as an opportunity to gain a good general education and not merely as a stepping stone to medical school.

Admission to the Medical School is based upon two types of qualifications. The applicant must present evidence of good character, proper attitude, and sincere interest in the study of medicine. He must also have demonstrated sufficient intellectual ability to undertake satisfactorily the study of medicine, as judged by his premedical scholastic record and scores on the Medical College Admission Test. Admission is on a competitive basis.

Applicants for admission are required to complete satisfactorily not less than three years of full-schedule work in an accredited college or university, that is, 138 term hours (92 semester hours) of college work, exclusive of military science, before entering the Medical School. The following subjects and credits are prescribed as the minimum acceptable for admission.

	$T\epsilon$	erm Hour
Chemistry		24
General inorganic, which may include qualitative analysis	12	
Quantitative analysis, emphasis on volumetric analysis	4	
Örganic	8	
Biology		15
General biology or zoology	9	
Selections from embryology, genetics, or comparative anatomy		
(in this order of preference)	6	
Physics		12
Mathematics		6
*English		9
Electives		72
Total Prescribed Credits		138

Foreign language is not specifically required for admission to the Medical School, but some knowledge of a major modern foreign language (German, French, Russian, Spanish) is highly recommended as a part of the cultural training of the physician. Students anticipating research in the medical sciences should have a basic knowledge of German and French. The premedical student should keep in mind that some medical schools require credit in foreign language for admission.

The work in organic chemistry must include the chemistry of both aliphatic and aromatic compounds. Biochemistry will not be accepted toward meeting the requirements. At least 25 per cent of all chemistry credit must be for laboratory work.

Human anatomy is not accepted toward meeting the minimum requirements in biology.

The work in physics must include the divisions of mechanics, heat and sound, light and electricity, with standard laboratory work.

The work in mathematics should be of standard college grade, and should include subjects such as algebra, elementary analysis, trigonometry, or calculus.

Recommended Elective Subjects. The student preparing to study medicine is advised to plan a halance in elective courses between those in liberal arts and courses beyond the minimum requirements in subjects prescribed for admission to the Medical School. Subjects suggested are: history, economics, sociology, psychology, English, public speaking, foreign language, general or cellular physiology, physical chemistry, and mathematics.

Medical College Admission Test. Applicants for admission are expected to have taken the Medical College Admission Test, given for the Association of American Medical Colleges at the various institutions offering premedical curricula. Exceptions to this rule may be allowed in the case of applicants who, because of legitimate reasons approved by the Committee on Admissions, have been unable to take the test. If admitted, however, the student is required to take the test before entering the Medical School.

Applicants should take the test during the calendar year immediately preceding the year of their admission to the Medical School. The test is given twice each year—in the early fall and mid-spring. Information as to exact time and place of the test and registration deadlines can be obtained from college premedical advisors.

**Bachelor's Degree.** A student entering the University of Oregon Medical School without a Bachelor of Arts or Bachelor of Science degree must complete the work required for one of these degrees in the Oregon State System of Higher Education or in the institution at which he received his premedical preparation, before entering upon the work of the third year in the Medical School.\*

The University of Oregon, Oregon State University, and most of the colleges and universities of the Pacific Northwest recognize credit earned by a student during his first year at the Medical School as credit earned in residence toward the bachelor's degree.

<sup>\*</sup> Students expecting to receive the bachelor's degree from the University of Oregon should include 9 hours of English ecomposition and 9 hours of English literature in their premedical programs.

62

#### ACADEMIC REGULATIONS

Application Procedure. Application forms may be obtained from the Medical School Registrar, and all credentials should be sent to that office. Because the Committee on Admissions begins examining applications a year in advance of entrance to the Medical School, *early application is advisable*. Applications are accepted between July 1 and December 15. A place in the first-year class is not granted to an applicant more than one year before the beginning of instruction for that class.

The University of Oregon Medical School gives primary consideration to well-qualified applicants who are residents of Oregon. Preference is also given to residents of neighboring western states which do not have medical schools and which are members of the Western Interstate Commission on Higher Education (WICHE). Occasionally exceptional applicants from other regions are admitted.

Applicants who are residents of Alaska, Arizona, Hawaii, Idaho, Montana, Nevada, New Mexico, or Wyoming, should request certification for medical training under WICHE from their state certifying officer or agency at the time application is made for admission to the University of Oregon Medical School. In addition to preferential consideration for admission given WICHE certified applicants over other nonresident applicants, the WICHE-supported applicant pays the Oregon resident tuition fee.

On or before December 15 the applicant must submit the following :

Formal application for admission on the form furnished by the Medical School Registrar.

Official transcripts of all previous college records (sent directly to the University of Oregon Medical School Registrar by the institution or institutions where preprofessional training was taken), showing the complete college record with grades and credits.

A fcc of \$5.00 which is charged for the evaluation of transcripts. This fee should be enclosed with the application for admission. (Make checks or money orders payable to the University of Oregon Medical School.)

One unmounted recent glossy photograph, size  $2\frac{1}{4}$ " x  $2\frac{1}{4}$ " of the applicant in conventional dress, front view.

Scores received on the Medical College Admission Test (when the student takes the test he should request that his scores be sent to the University of Oregon Medical School Registrar).

After the initial screening, well-qualified applicants will be required to submit *a physical examination sheet*, completed by the student's physician.

# Processing of Applications

**Evaluation of Credentials.** The Committee on Admissions examines each applicant's credentials and bases its preliminary decision on the objective evaluation of the following factors: preprofessional training, evidence of scholarship, Medical College Admission Test scores, personal evaluation of the student by premedical instructors, and evidence of good moral character.

**Personal Interview.** After examination of credentials, residents of Oregon generally are requested to appear for a personal interview with the Committee on Admissions. A personal interview is not requested of nonresidents whose credentials indicate that they cannot meet the competition for admission, or who

63

would be subjected to excessive travel expense. The committee schedules interviews in Portland, Eugene, and Corvallis.

**Physical Examination.** Just as the Medical School's Committee on Admissions may refuse admission to a student on the basis of academic record, it also may reject an applicant on the grounds of lack of physical or mental suitability. Applicants who appear well qualified on the basis of the initial screening by the committee are required to submit reports of complete examinations by their own physicians, which are reviewed by the student health physician before final acceptance.

Notification of Acceptance or Rejection. All candidates are given written notification of acceptance or rejection as soon as possible after the Committee on Admissions has reached its final decision; notification is generally given by April 15. Acknowledgement of notification of acceptance should be made promptly in writing by the successful applicant.

Acceptance of Appointment. When an applicant is offered admission to the Medical School and wishes to accept this admission, a deposit of \$25.00 must be paid not later than two weeks following notice of acceptance in order to reserve a place in the entering class. If the deposit is made prior to December 15, it is not refundable after January 15 should the student release his place in the class. If the deposit is made after December 15 it is not refundable after a period of thirty days following notice of acceptance.

**Special Students.** Special students are admitted to the University of Oregon Medical School under certain special conditions. The reasons for admission, qualifications for entrance, and the courses to be taken as a special student must be passed upon by the Admissions Committee and approved by the dean.

Graduates in medicine may be admitted as special students, but graduates in medicine from other medical schools may not be candidates for the degree of Doctor of Medicine at the University of Oregon Medical School.

Students holding only academic degrees may be admitted as special students in certain courses in the Medical School. Such students may not receive academic credit for work in clinical subjects and may not audit clinical courses.

Undergraduates may not be admitted to courses in the Medical School as special students.

A person who has failed a course as a medical student in another medical school may not repeat the course as a special student at the University of Oregon Medical School unless the course is given at some time other than during the regular academic year.

Special students are charged fees according to the credit hours of work taken. Application forms for admission as a special student may be obtained from the Registrar.

Advanced Standing. A student may be considered for admission with advanced standing provided his official credentials are accompanied by a statement from the registrar of the institution from which he is transferring to the effect that the applicant's scholarship in medical school work ranks him in the upper fifty per cent of his class. An honorable dismissal and premedical preparation meeting the regular requirements for admission are also required. In general, only transfer to the third-year class is feasible. Only a very limited number of students can be admitted with advanced standing.

**Registration Procedure.** Medical students register only once each year (see Calendar, page 8), at the beginning of the fall term. Students report to the Registrar's Office on the day of registration to complete registration and receive class schedules. Fees are to be paid at the Cashier's Office within the first two days of each term.

Schedules of classes for each term are available at 8:00 a.m. on the first day of the term.

# Fees and Expenses

FEES AND DEPOSITS paid by students at the University of Oregon Medical School are as follows:

#### Regular Fees

Tuition, per term	.\$ 80.00
Laboratory and course fee, per term	. 117.00
<sup>1</sup> Building fee, per term	. 12.00
<sup>2</sup> Incidental fee, per term	. 26.00
	\$235.00

Nonresident fee, per ferm (in	addition to
fees for resident students)	)\$136.00

. . . .

#### Graduate Fees<sup>3</sup>

For graduate students registered for 7 or more term hours of work per	term :
Tuition\$	20.00
Laboratory and course fee	40.00
<sup>1</sup> Building fee	
<sup>2</sup> Incidental fee, per term	

							4	> 20.00
For m	aduate students :	registered for	7 term	hours	of work			
TOLE	aduate students	registered for	/ Lerm	nours	JI WUIK			
or	less	\$11.00	per term	hour	(minimum.	\$22.00	per	term)

¢ 08 00

\$ 38.00

For graduate students employed as graduate or research assistants or fellows, per term: <sup>1</sup>Building fee \$12.00

<sup>2</sup> Incidental fee	26.00
-	

#### Deposits

<sup>4</sup> Deposit to reserve place in entering class (applied on tuition)	\$25.00
<sup>5</sup> Breakage deposit, per year-first and second years	\$15.00
<sup>5</sup> Breakage deposit, per year—graduate students	\$ 5.00

#### Special Fees

Registration and laboratory fee for special students registered for 7 term hours of work or less\$17.00 per term hour (minimum \$34.00 per	
Auditor's fee for lectures, per term hour An auditor is a person who has obtained permission to attend classes without receiving academic credit.	\$ 5.50
Transcript fee One transcript is issued free; a fee of \$1.00 is charged for each additional transcript.	\$ 1.00
1 Part-time special students (students taking 7 hours of work or less) do not pay t	he build-
ing fee.	
2 The incidental fee is for student health service and for use of the Student A	Activities
Building.	

3 Only those students pursuing programs of study toward the M.A., M.S., or Ph.D. degree are classified as graduate students. These students do not pay the nonresident fee. 4 See page 63.

5 The cost of any damage done by a student to Medical School property is deducted from his deposit; in case the identity of the one responsible cannot be established, a pro-rata charge is made against the entire class of which he is a member.

Evaluation fee The evaluation fee is charged for the evaluation of transcripts submitted with the application for admission; not refundable.	.\$ 5.00
Late-registration fee, per day (no maximum) Registration day is the first day of each term; registration is not complete until the student pays his tuition and fees. The first penalty day for full-time students in medicine and medical technology is the second day after registration day. The first penalty day for graduate students is one week after registration day.	.\$ 1.00
Graduate qualifying-examination fee\$1.00 to	\$15.00

#### Microscopes

Medical students are expected to provide themselves with microscopes. Microscopes are available for students who wish to rent them, for a fee of \$6.00 a term.

#### Estimate of Yearly Expenses

The following table represents only estimates based on current fees and results of student surveys.

Tuition and fees, full-time resident students\$ Tuition and fees, full-time nonresident students	1,033.00
Breakage deposit Microscope fee	18.00
Books and supplies Board and room	135.00
Personal expenses	200.00

#### Fee Refunds

Students who withdraw from the Medical School and who have complied with the regulations governing withdrawals are entitled to certain refunds of fees paid, depending on the time of withdrawal. The refund schedule has been established by the Oregon State Board of Higher Education and is on file in the Business Office of the Medical School. Refunds are subject to the following regulations:

(1) Any claim for refund must be made in writing before the close of the term in which the claim originated.

(2) Refunds in all cases are calculated from the date of application for refund and not from the date when the student ceased attending classes, except in unusual cases when formal withdrawal has been delayed through causes largely beyond the control of the student.

#### **Regulations Governing Nonresident Fee**

Under the regulations of the Oregon State Board of Higher Education, a minor student whose parents are bona fide residents of Oregon qualifies for enrollment under the resident fee; and a student whose domicile is independent of his father qualifies for enrollment under the resident fee if he presents convincing evidence that he established his domicile in Oregon three months prior to his first registration and that he was not a student at a collegiate institution during this period.

All other students are required to pay the nonresident fee, with the following exceptions: (1) a student who holds a degree from an accredited college or university (however, a nonresident student with a bachelor's degree enrolled in a curriculum at the University of Oregon Medical or Dental School leading to the degree of Doctor of Medicine or Doctor of Dental Medicine is required to pay the nonresident fee); (2) a student attending a summer session; (3) a student paying part-time fees.

 $\hat{A}$  student who has been classified as a nonresident may be reclassified as a resident :

(1) In the case of a minor, if his nonresident parents have moved to Oregon and have established a bona fide residence in the state, or

65

#### ACADEMIC REGULATIONS

(2) In the case of a student whose domicile is independent of that of his father, if the student presents convincing evidence that he has established his domicile in Oregon and that he has resided in the state for at least twelve consecutive months immediately prior to the term for which reclassification is sought.

A student whose official record shows a domicile outside of Oregon is prima facie a nonresident and the burden is upon the student to prove that he is a resident of Oregon. If his scholastic record shows attendance at a school outside of Oregon, he may be required to furnish further proof of Oregon domicile.

If any applicant has questions concerning the rules governing the administration of these policies, he should consult the Office of Admissions.

#### Part-Time Employment

The academic responsibilities in medical school are such that it is usually impossible for a student to undertake outside employment during the school year without causing academic work to suffer. This is particularly true in the first and second years. Under special circumstances students may find employment in various departments of the University of Oregon Medical School and hospitals during their second, third, and fourth years and during summer vacations.

#### Veterans' Information

The student must present a Certificate of Eligibility to the Registrar effective prior to the opening day of the course in order to take advantage of veterans' benefits.

Public Law 550 (Korean Veterans). Under this plan the student pays all the expenses of tuition and books and receives a monthly check, designed to cover both educational expenses and subsistence, from the Veterans Administration. The amount of the check is based on the number of hours for which the student is enrolled. The Korean veteran may discontinue his training for a period not exceeding twelve months without losing his eligibility. If he wishes to return to school after this period, he must reapply for a Certificate of Eligibility.

Public Law 894 (Korean Veterans). Each case is handled individually according to the percentage of disability. Disabled veterans should contact the Veterans Administration directly for answers to their questions concerning this law.

Questions concerning benefits should be directed to the Registrar's Office.

# Scholastic Regulations

Grades and Grading System. A grading system of A to D is used at the Medical School. A is the highest and D is the lowest passing grade. If a course is not completed within the time allotted, the work must be finished satisfactorily within one year. Failure in a course requires repetition of the course. In most courses the student will be given frequent written and practical tests, marked with percentage grades. The student may be given these percentage grades by his instructors, but *final grades are issued only by the Registrar's Office*. Final grades are given for each term's work, but are issued only at the end of the school year.

If at any time during the school year the student feels his work is not satisfactory, he should consult his instructor. Should special problems arise that threaten to interfere with study, the student should consult a faculty member for advice before his scholarship has been seriously affected. **Promotion.** In order to be promoted unconditionally from the first to the second year and from the second to the third year in Medical School, the student must receive a passing grade in all subjects and a weighted grade-point average as established by the executive faculty. At the completion of the second year all students must achieve a grade of 70 in all subjects of the Part I examination of the National Board of Medical Examiners in order to be promoted to the third year. Failure to obtain a grade of 70 necessitates taking a special departmental examination in all subjects failed. For promotion from the third to the fourth year, students must satisfactorily complete all subjects. The status of students failing to meet these requirements is determined by the promotion boards.

The Preclinical Promotion Board, which considers only students in the first and second years of medicine, consists of all faculty members giving instruction during the first and second years. The Clinical Promotion Board is concerned with the performance of third- and fourth-year students; this board is composed of representatives from all the clinical departments. The boards meet after the end of each term to consider incomplete work, conditions, and failures.

Specific problems are referred to the Review Board for subsequent action. The Review Board, composed of chairmen of departments, considers primarily requests from students arising from actions taken by the Preclinical and Clinical Promotion Boards.

Elective Courses. Elective courses are offered in both clinical and basic science departments. Registration for elective courses must be arranged at the Registrar's Office during the first week of the term in which the course is given.

If the student withdraws from an elective course for any reason, this must be done at the Registrar's Office within two weeks after the beginning of the course. Otherwise he will be held responsible for the course and the grade will be incorporated into his record.

**Dismissal.** The faculty has the right to sever, at any time, the connection with the Medical School of any student who is considered to be physically, morally, or mentally unfit for a career in medicine. A student may be dropped upon the recommendation of a Promotion Board.

A student ordinarily may be on probation status for two terms before the Promotion Board recommends his dismissal; however, the faculty, for adequate cause, may drop a student without previous warning.

**Requirements for the Degree of Doctor of Medicine.** A candidate for the degree of Doctor of Medicine must complete satisfactorily the curriculum and all other requirements prescribed by the faculty of the Medical School. Members of the senior class are required to pass the Part II examination of the National Board of Medical Examiners which is given in April. Failure to pass the examination necessitates taking a special departmental examination in any subjects failed. All candidates for degrees are required to be present at the Commencement Exercises to receive their diplomas in person. The Doctor of Medicine degree is conferred by the University of Oregon upon the recommendation of the faculty of the Medical School.

Licensure. Admission to the practice of medicine in any state is conditioned upon the requirements of a state board of medical examiners. Admission to practice in the state of Oregon is dependent upon the candidate's having an M.D. degree, completing a one-year straight or rotating internship, and passing the basic science and licensing examinations. For candidates who are already licensed to practice in another state, the licensing examination may be waived by reciprocity with that state, if such a reciprocal agreement is in force. In some instances completion of the basic science requirements may be arranged by reciprocity also.

Further information about licensure requirements may be obtained from the Oregon State Board of Medical Examiners, 609 Failing Building, Portland.

66

## ACADEMIC REGULATIONS

Students are urged to take the Oregon basic science examination at the end of their sophomore year. This examination is given by the Basic Science Examining Committee of the Oregon State Board of Higher Education and is required for licensure in Oregon. Information concerning this examination may be obtained by writing the Basic Science Examining Committee, Oregon State Board of Higher Education. Eugene.

## Curriculum in Medicine

THE CURRICULUM IN MEDICINE requires a total of seven years' work beyond high school. The first three years must be satisfactorily completed before admission to the Medical School in Portland. Since facilities for instruction provide for the acceptance of only a limited number of applicants, completion of premedical studies does not guarantee admission to the Medical School.

The four years spent in the Medical School in Portland are devoted to the subjects of the regular four-year curriculum in medicine required by law.

The prescribed and recommended subjects for the three premedical years are described under ADMISSION AND REQUIREMENTS. In the first, second, third, and fourth years at the Medical School there are 5,312 class hours of required work. Descriptions of courses are to be found under the several departmental headings.

### Prescribed Work

#### First Year

	<u> </u>	Aggregate	e class h	011 <b>rs</b> ——	Term
A= 411 418 412 0		ure Lab.	Clin	ic Total	hours
An 411, 412, 413 Gross Anatomy	84	288			
		-00	•	372	15
		•0	••••	72	4
		200	••••	144	6
				96	4
		100		276	13
				168	8
PH 411Statistical Methods	12	36	•	48	4
			••••	48	2
	396	828		1,224	
Second Year		020	•···	1,224	56
Bac 413, 414 Med Microbiology & Tana 1					
		144		216	10
		72		108	5
		144		216	10
		24	••••	36	11/2
		24		36	1 1/2
		72	••••	168	10
		72	····	120	6
Psy 511, 512 Interview, Tech. & Psychiatric Med PH 512, 513 Foidemin, Tech. & Psychiatric Med	72		72	144	9
		48		72	4
Sur 610Introduction to Surgery	. 36	36	•···•	72	4
Surgery	36	•	····	36	3
	516	636	72	1,224	64
Pth 655 Sup 1 D at 4					
Pth 655Surgical Pathology	• ••••	30		30	11/
			372	444	11/4 211/2
				24	$\frac{2172}{2}$
Psy 615Lectures in Clinical Psychiatry	. 12			12	1
Psy 630Clinical Clerkship		36		36	11/2
				36	$\frac{1}{2}$
				36	3
Eng 615	60		372	432	-
				12	201/2
ENT 615Ear, Nose & Throat	12			12	1 1
			156	204	-
Ped 630	36		192	204	101/2
				220	11
	348	66 1	,092	1,506	77 1/4
		1	,	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	1 /4

#### CURRICULUM

#### Fourth Year

	-Agg	regate	class hor	ırs——	Term
	Lecture	Lab.	Clinic	Total	hours
CP 650Clinical Pathology	. 12			12	1
Pth 653 Forensic Medicine	. 12			12	1
Pth 654Oncology			••••	12	1
Med 657 Occupational Medicine		••••	••••	12	1
Med 658 Medical Ecoonmics				12	1
Med 670 Fourth-Year Medicine			288	324	15
Derm 670 Dermatology Outpatient Clinic			36	36	11/2
DM 650Dent. Facial Growth & Oral Path			••••	12	1
Psy 670 Psychiatry Outpatient Cl. & Clerk			48	48	2
Sur 670 Fourth-Year Surgery		•	412	436	19
Eye 650			••••	12	1
Eye 670 Eye Outpatient Clinic		••••	24	24	1
ENT 670 Fourth-Year Ear, Nose & Throat		••••	58	58	$2\frac{1}{2}$
Obs-Gyn 670 Fourth-Year Obs. & Gyn.			228	228	91/2
Ped 670 Fourth-Year Pediatrics	• ••••	••••	120	120	9
			1.014	1 150	
	144		1,214	1,358	661⁄2
Recapitulation					
Recupitulation	A ~~~	regate	class hou	175	Term
	Lecture			Total	
	Licoture		Cunic	1 Juan	nould

	Lecture	Lab.	Clinic	Total	hours
First year	. 396	828		1,224	56
Second year	516	636	72	1,224	64
Third year	348	66	1,092	1,506	77 1/4
Fourth year	144		1,214	1,358	66½
1	1,404 <b>1</b>	,530	2,378	5,312	2633/4

#### Prescribed Work by Departments

Aggregate class hours

6
2
2
1
2
1,0
1
5.3

#### ANATOMY

# **Description of Courses**

## Course Numbering System

MEDICAL SCHOOL courses are numbered in accordance with the uniform course-numbering system of the Oregon State System of Higher Education. This numbering system, as it applies to the Medical School courses, is as follows:

- 400-499. Upper-division courses primarily for first-year students in medicine, but to which graduate students may be admitted on approval of the graduate adviser and department head concerned.
- 500-599. Courses primarily for students in basic medical science, but to which graduate students may be admitted on approval of graduate adviser and department head concerned.
- 600-699. Courses that are highly professional in nature may count toward a professional degree, but cannot apply toward an advanced academic degree (M.A., M.S., or Ph.D.).

Certain numbers are reserved for courses that may be taken through successive terms under the same course number, credit being granted according to the amount of acceptable work done. These course numbers are as follows:

501.	Research
503.	Thesis.

505. Reading and Conterence 507. Seminar

## **Basic Science Departments**

#### Anatomy

#### ANTHONY A. PEARSON, Chairman of Department

Professors ROBERT L. BACON Associate Professors \*DAVID L. GUNBERG \*DAVID L. GUNBERG ALFRED G. HAYES ALFRED G. HAYES ALFRED G. HAYES Clinical Professor JOHN M. PIERSON Clinical Instructor JOHN E. SWETT

Research Associate Willinm R. Bishop Research Assistants

ALLIS RIBLETT

M. BARBARA LEIGHTON JEAN MACY Dolores M. Wahl William S. Wilson

#### REQUIRED COURSES

#### FIRST YEAR

An 411, 412, 413. Gross Anatomy. 6 hours fall, 6 hours winter, 3 hours spring. Regional dissection of the human body. Each two students dissect the lateral

\* On leave of absence at Airlangga University Medical School, Surabaja, Indonesia, from August 1, 1962 to July 31, 1964. half of a body. The student is furnished with a loan collection of disarticulated bones for the study of osteology. Demonstrations include surface and radiological anatomy. Fall: lectures and quizzes, 2 hours a week; laboratory, 12 hours a week. Winter: lectures and quizzes, 2 hours a week; laboratory, 12 hours a week. Spring: lectures and quizzes, 2 hours a week; laboratory, 3 hours a week; 372 hours.

#### An 414. Embryology. 1 hour fall, 3 hours winter.

Lectures on reproductive cycle, fertilization, normal and abnormal human development, correlated with the laboratory study of pig embryos and with demonstrations of human embryos and fetuses. Fall: lectures and quizzes, 1 hour a week. Winter: lectures and quizzes, 2 hours a week; laboratory 3 hours a week. 72 hours.

#### An 415. Histology and Organology. 6 hours fall.

Systematic study of the microscopic anatomy of normal human tissues and organs. Lectures and laboratory exercises furnish an introduction to how cells contribute to tissue and organ function and to how the organs are assembled from tissues. Lectures and quizzes, 3 hours a week; laboratory, 9 hours a week. 144 hours.

### An 511. Neurology and Organs of Special Senses. 4 hours spring.

Study of the structure and functions of the organs of special senses and of the central nervous system. This is accomplished by gross dissections and stained sections of the human brain, spinal cord, and organs of special senses. Pathological conditions illustrating lesions of the nervous system are demonstrated. Prerequisites: An 411, An 412, An 413, An 415. Lectures, 2 hours a week; laboratory, 6 hours a week. 96 hours.

#### ELECTIVE COURSES

#### An 416. Microscopic Technique. 2 hours spring.

The theory and practice of preparing animal tissue for histological study. Limited to 4 students, registration only after consultation with instructor. Laboratory, 6 hours a week; 72 hours.

- An 501. Research. Any term, hours to be arranged.
- An 505. Reading and Conference. Any term, hours to be arranged.
- An 507. Seminar. Any term, hours to be arranged.

Journal Club.

History of Medicine.

#### An 512. Analytical Embryology. 4 hours spring.

Lectures and assigned readings on cytology and physiology of gametes, gamete transport, fertilization, cleavage and cell division, and on cell, tissue, and organ interaction in embryonic systems. The laboratory work is designed to introduce the advanced student to both classical and new techniques for the investigation of embryonic processes. Prerequisites: An 414, 415, BCh 411, 412, or equivalent. Lectures, 2 hours a week; laboratory, 6 hours a week.

#### An 513. Analytical Histology. 4 hours spring.

Lectures on the theory of fixation and staining; survey of physical and chemical techniques employed in modern histology. Practical experience with some of these techniques provided by laboratory exercises. Lectures and quizzes, 2 hours a week; laboratory, 6 hours a week. Prerequisites: An 415, 416, BCh 411, 412, or the equivalent. Limited to 10 students.

#### An 514. Special Dissections. Term and hours to be arranged.

Human anatomical material dissected and certain parts of the body studied more thoroughly. Conferences and quizzes arranged with the instructor. Registration limited by available material. Prerequisites: An 411, 412, 413.

## An 515. Advanced Neuroanatomy and Computer Techniques. Any term, hours to be arranged.

Neuroanatomy as an advanced quantitative science. Introduction to the use of the stationary time series, probability theory, and information theory in

#### DESCRIPTION OF COURSES

the investigation of the nervous system. Variables in the nervous system which can be measured; and statistical procedures on these variables. Methods for data acquisition and computer solution of problems.

#### An 516. Computer Programming. Any term, hours to be arranged.

An introduction to what a computer can do. The characteristics of the IBM 1410: uses of Fortran (formula translation) and Autocoder Language; elements of programming and examples of programs.

#### An 611. Applied Anatomy. 2 hours.

ARTHUR W. FRISCH

The objective of this course is to present to a limited number of students (30-40) a review of human anatomy, with an anatomical consideration of the various regions of the body with reference to specific surgical problems. Embalmed and unembalmed cadavers used. Surface and radiological anatomy included. Prerequisites: An 411, 412, 413. Lectures and demonstrations, 2 hours a week; 24 hours.

## Bacteriology

#### ARTHUR W. FRISCH. Chairman of Department

Professors

EVELYN L. OGINSKY

Associate Professor

LYLE VEAZIE

Assistant Professor ERNEST A. MEYER

Instructor RUTH A. MYLLENBECK

Research Assistants

BETTY POPE

GORDON H. DAVIES

JOAN SAILOR

#### **REQUIRED COURSES**

SECOND YEAR

Bac 413, 414. Medical Microbiology and Immunology. 5 hours each term, fall and winter.

The material covered includes basic bacteriology, immunology, and pathogenic microbiology. Bacterial, viral, rickettsial, and fungal disease presented dur-ing the first 18 weeks. The last six weeks are devoted to the study of protozoan and helminthic parasites of man. Lectures and recitations, 3 hours a week: laboratory, 6 hours a week, 216 hours.

#### ELECTIVE COURSES

Bac 501. Research in Bacteriology and Immunology. Any term, hours to be be arranged.

Bac 505. Reading and Conference. Any term, hours to be arranged.

Bac 507. Seminar in Bacteriology and Immunology. 1 hour any term.

Meetings of the departmental staff and assistants with a number of specially qualified students to discuss the newer developments in the science as they appear in the current periodical literature. Topics assigned and individual reports read at meetings of the class. Open to a limited number of students. Meetings held once each week for one hour.

Bac 508. Advanced Bacteriology and Immunology. Any term, hours to be arranged.

A course for medical, special, and graduate students who wish to pursue any phase of the subject beyond Bac 414. Organized courses in immunology and bacteriology are given every other year.

#### BIOCHEMISTRY

### Biochemistry

#### EDWARD S. WEST, Chairman of Department

Associate Professors

Assistant Professors

Instructors

**Research** Associates

Research Assistants LESTER LAAESTUEN

Professors HOWARD S. MASON

WILBERT R. TODD

\*TACK H. FELLMAN

RICHARD T. JONES

BARRY ALLEN

P. MACMAHILL

NICHOLAS NICOLAIDES

A. WESLEY HORTON DAVID S. JACKSON

CLARISSA H. BEATTY ANTONIO E. COLAS

MARVIN C. HINES

DALE D. HOSKINS

Kyo-Joen Ahn

MARILOUISE ALLEN

RUTH M. ALLEN

ANNE M. PERLEY ELLEN L. TALLMAN

ROSE MARY BOCEK

THOMAS FUJITA

ELINOR LEVIN

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JOHN T. VAN BRUGGEN

EDWARD S. WEST

RUTH D. PETERSON

DEMETRIOS A. RIGAS

#### REQUIRED COURSES

FIRST YEAR

## BCh 411, 412. General Medical Biochemistry. 6 hours fall, 7 hours winter.

Organic and physical chemistry pertaining to biochemistry; the composition of tissues; enzymes, digestion, and absorption; detoxication; the chemistry of blood and respiration; hormones; metabolism; nutrition; the excretions. Fall: lectures, 4 hours a week; laboratory, 6 hours a week. Winter: lectures, 4 hours a week; laboratory, 9 hours a week. 276 hours.

#### ELECTIVE COURSES

BCh 501. Biochemistry Research. Any term, hours to be arranged.

BCh 505. Reading and Conference. Any term, hours to be arranged.

BCh 507. Seminar. Any term, hours to be arranged.

HOMER H. HARRIS

BCh 512. Biochemical Techniques. Any term, hours to be arranged.

Preparation of selected substances of biochemical importance, selected methods of analysis, theory and use of radioisotopes, instrumentation. Assigned readings, lectures, and laboratory. Prerequisites : BCh 411, 412.

BCh 513. Advanced Biochemistry. Any term, hours to be arranged.

The more advanced phases of biochemistry, with special emphasis upon metabolic processes. Assigned readings and lectures. Prerequisites : BCh 411, 412.

#### BCh 514. Chemistry of Bio-organic Substances. Any term, hours to be arranged.

The composition and properties of substances important in biochemistry presented from the viewpoint of modern chemical and physical theories. Assigned readings and lectures. Prerequisites: BCh 411, 412.

## Clinical Pathology

TYRA T. HUTCHENS, Chairman of Department

#### Professor

TYRA T. HUTCHENS

#### Associate Clinical Professors TAMES H. LIUM

\* On leave of absence, Max-Planck Institute, Munich, Germany, from Aug. 1, 1963 to July 31, 1964.

#### DESCRIPTION OF COURSES

Assistant Professors TAMES L. BRAMHALL MARTHA L. HAMILTON GERALD L. LATTIC Assistant Clinical Professors EUGENE W. LANDRETH MARLOWE DITTERRANDT ALBERT A. OVAMA Clinical Associate JAMES S. ARNOLD

> Instructor MARY E. BAPTIST (Medical Technology)

Clinical Instructors

#### **Research** Assistants JEANNE CARROLL HOPKINS

NIGEL A. PICKERING

Residents

ROBERT M. CONNELL JOHN T. DIFFERDING

ROBERT F. MALISON JOHN H. RIPPEY JAMES E. ODELL OSCAR STENBERG SUZANNE M. PAULSEN

#### REQUIRED COURSES

#### SECOND YEAR

CP 511. Introduction to Clinical Pathology. 5 hours spring. Lectures, demonstrations, and laboratory work dealing with the application of laboratory measurements to the practice of medicine. Lectures, 3 hours a week: laboratory, 6 hours a week. 108 hours.

#### FOURTH YEAR

CP 650. Clinical Pathology. 1 hour spring. Lectures and demonstrations, dealing with recent developments in laboratory methods applicable to the practice of medicine. 1 hour a week; 12 hours.

#### ELECTIVE COURSES

#### CP 501. Research. Any term, hours to be arranged.

- CP 520, 521, Radioisotope Techniques, 1 hour each term, fall and winter. Lectures and demonstrations concerning the theoretical and practical application of radioisotope techniques to medicine. 1 hour a week; 24 hours.
- CP 522. Radioisotope Laboratory. Any term, hours to be arranged. Laboratory experience with instruments used in radioisotope work.

## Medical Psychology

JOSEPH D. MATARAZZO, Chairman of Department Professors

JUDSON	c	<b>D</b>	
JUDSON	э.	DRG	JWN
FREDER		ч	KANFER

BERNADENE V. ALLEN

JOSEPH D. MATARAZZO GEORGE SASLOW (Psychiatry)

Associate Professor RICHARD F. THOMPSON Assistant Professors

BRUCE V. BUTLER CONSTANCE HANF

JOHN O. KANGAS JEANNE S. PHILLIPS RUTH G. MATARAZZO ARTHUR N. WIENS Instructors

#### ROBERT D. FITZGERALD

#### **REOUIRED COURSE**

#### FIRST YEAR

Med Ps 411, 412. Introduction to Medical Psychology. 2 hours each term, winter and spring.

An introductory course, including lectures, student discussion ,and clinical and experimental demonstrations designed to familiarize the student with psychology as one of the behavioral sciences. 2 hours a week: 48 hours.

#### ELECTIVE COURSES

Med Ps 501. Research. Any term. hours to be arranged.

Med Ps 505. Reading and Conference. Any term, hours to be arranged.

Med Ps 507. Seminar. Any term, hours to be arranged.

Emotion and Motivation. History and Systems of Psychology. Theories of Personality. Learning. Statistics and Research Design. Individual Differences. Social Psychology. Physiological Psychology.

## Pathology

	I athology	
Jack	son T. CRANE, Chairman of	Department
	Professor Emeritus Frank R. Menne	
	Professors	
JACKSON T. CR.	ANE	BENJAMIN V. SIEGEL
•	Clinical Professors	
WARREN C. HU	· · ·	VINTON D. SNEEDEN
,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	Associate Professors	
NELSON R. NI		SEFTON R. WELLINGS
	Associate Clinical Profes	5075
Sheldon A. Jacobson	E. COLTON MEEK	Joseph E. Nohlgren
	Assistant Professors	
Robert E. Cooper, Jr.	JAMES R. PHILP	Daljit S. Sarkaria
	Assistant Clinical Profes	sors
Clarence L. Chester Terence H. Cochran	Otto R. Emig Albert A. Oyama	John C. Smith, II Grier F. Starr
	Clinical Associate	
	NORMAN H. RICKLES	5
	Instructors	
Jean H. Boyes	ROBERT E. BROOKS	JAMES DEWITT RANKIN
<b>y</b>	Residents	
ROBERT D. CA	RDIFF	ARTHUR L. KOEHLER
		70

#### REQUIRED COURSES

#### SECOND YEAR

## Pth 511. General Pathology. 5 hours fall.

General principles of disease. Study of prepared slides supplemented by experiments and study of selected autopsies by all students; fresh and museum specimens; colored slides and scopicon orientation. Lectures and recitations, 3 hours a week; laboratory, 6 hours a week. 108 hours.

## Pth 512. General Pathology. 5 hours winter.

Same as Pth 511 except that disease is related to body systems. Lectures, 3 hours a week; laboratory, 6 hours a week. 108 hours.

Pth 514. Gynecological and Obstetrical Pathology. 11/2 hours spring. Basic and practical consideration of diseases of female organs. Lectures, 1 hour a week; laboratory, 2 hours a week; 36 hours.

### PATHOLOGY

75

DAVID S. TAKALO

DAVID S. NEWPORT

## DESCRIPTION OF COURSES

## Pth 515. Laboratory Neuropathology. 11/2 hours spring.

Laboratory work and demonstrations dealing with inflammatory reactions and degenerative conditions, with emphasis on general paresis, tabes dorsalis, and brain tumors. Correlative lectures in neurophysiology and clinical neurology. Gross pathological specimens and demonstrations used in illustrating the diseases studied. Lectures, 1 hour a week; laboratory, 2 hours a week. 36 hours.

#### THIRD YEAR

Pth 655. Surgical Pathology. 11/4 hours, one section each term.

Applications of pathology to immediate study of operatively removed tissues, correlating the clinical aspects of individual cases with pathologic findings; occasional comprehensive demonstrations. 6 hours a week for six weeks; 36 hours.

#### FOURTH YEAR

Pth 653. Forensic Medicine. 1 hour fall.

Lectures and demonstrations of medicolegal and allied subjects. 1 hour a week ; 12 hours.

## Pth 654. Oncology. 1 hour spring.

Systematic study of cancer. Historical development of knowledge; experimental development of cancer; characteristics of human cancer; statistical information; present cancer problems; recent developments; organizational attack; methods of diagnosis and therapy; patient's and physician's responsibilities. Round-table instruction with illustration. Lectures, 1 hour a week; laboratory, 1 hour a week. 24 hours.

#### ELECTIVE COURSES

Pth 501. Research. Any term, hours to be arranged.

- Pth 505. Reading and Conference. Any term, hours to be arranged.
- Pth 516. Advanced Systemic Pathology. Any term, hours to be arranged. Study of the detached pathology of one system.
- Pth 517. Advanced Pathological Histology. Any term, hours to be arranged. Systematic study of microscopic sections of autopsy tissues. Open to students who have had at least one term's work in pathology.
- Pth 518. Special Pathology of Heart and Circulation. Hours to be arranged. Systematic and inclusive study of the pathologic states affecting the circulatory system, illustrated by sections and gross materials.

## Pth 614. Attendance at Autopsies. Hours to be arranged.

Opportunity offered to students to elect autopsy attendance with instruction. Such students are required to assist and make detailed suggestions. Limited to 20 students.

## Pharmacology

NORMAN A. DAVID, Chairman of Department

#### Professors

Norman A. David

Assistant Clinical Professor

## H. LENOX H. DICK

Research Assistants Leonard T. Sigell

ROBERT E. BRUMMETT EDWARD HOLLAND

Sterling M. Sorenson Raul Vernal

ELTON L. MCCAWLEY

#### PHYSIOLOGY

#### REQUIRED COURSES

#### SECOND YEAR

#### Phc 511, 512. Systematic Pharmacology. 5 hours each term, winter and spring.

Lectures on the important therapeutic drugs listed in the U. S. Pharmacopoeia, National Formulary and those newer drugs described in the New and Non-Official Drugs for the current year. Lectures are correlated with the latest editions of the several most widely used textbooks of pharmacology. Classic experiments in pharmacology are performed by groups of students following prior demonstration of techniques and procedures. Several experiments are of the volunteer human-trial-of-drug types. Four laboratory sessions are devoted to clinical presentations dealing with case reports and therapeutic use of drugs in hospitalized and clinic patients. Prescription writing, pharmacy, and toxicology considered in both the lecture and laboratory work. Lectures, 4 hours a week; laboratory, 3 hours a week. 168 hours.

#### ELECTIVE COURSES

#### Phc 501. Research. Any term, hours to be arranged.

Students who are properly qualified and who can devote an adequate amount of time to the work are encouraged to pursue original investigations.

Phc 505. Reading and Conference. Any term, hours to be arranged.

#### Phc 507. Seminar. 2 hours spring.

Open to third- and fourth-year students. 2 hours a week; 24 hours.

## Physiology

#### JOHN M. BROOKHART, Chairman of Department

Alfred J. RAMPONE	Professor John M. Brookhart Associate Professors Benjamin B. Ross Robert E. Swanson	Joseph B. Trainer
	Assistant Professor W. Alden Spencer	
	Instructor Eugene A. Lentini	
SHARON DUNNING	Research Assistants J. Craig Hambleton	WILLIAM R. RENCKEN
George M. Austin	Clinical Research Associates Monte A. Greer Donald M. Pitcairn	Moses E. Steinberg

#### REQUIRED COURSES

#### FIRST YEAR

#### Phy 411. Human Physiology. 8 hours spring.

Lectures, laboratory exercises, and conferences devoted to mammalian physiology, with special application to the human. Consideration given to the basic elements of effector control; basic information essential to the understanding of the functions of the respiratory, cardiovascular, and renal systems; discussion of gastrointestinal, liver, and endocrine functions. Lectures, 5 hours a week; laboratory, 9 hours a week. 168 hours.

#### Second Year

#### Phy 412. Human Physiology. 6 hours fall.

Continuation of Phy 411. Special attention given to the functional interrelationships between respiratory, cardiovascular, and renal systems. The general and special senses and the regional physiology of the central nervous

systems discussed. Appropriate laboratory exercises and conferences related to lecture material. Lectures, 4 hours a week; laboratory, 6 hours a week. 120 hours.

#### ELECTIVE COURSES

- Phy 501. Research. Any term, hours to be arranged. Prerequisite: Phy 411, 412.
- Phy 505. Reading and Conference. Any term, hours to be arranged. Prerequisite: Phy 411, 412.
- Phy 507. Seminar. Any term, hours to be arranged. Prerequisite: Phy 411, 412.
- Phy 514. History of Physiology. 1 hour winter.

One hour a week; 12 hours.

Phy 515, 516. Physiological Instrumentation and Techniques. 4 hours, terms to be arranged.

Lecture and laboratory work covering basic principles of measurement: signal generation by physiological systems; signal processing and display; principles of particle separation. The specific application of measuring instruments to problems of physiological measurement. Conference, 2 hours a week; laboratory, 6 hours a week, 96 hours.

Phy 517. Advanced Cardiovascular Physiology. 4 hours, term to be arranged.

Analysis of factors and conditions influencing the cardiovascular system. Special attention to presso, chemo, and volume receptors, ventricular dynamics, the role of the C.N.S., myocardial metabolism, and the regional distribution of the blood volume. Conference, 2 hours a week; laboratory, 6 hours a week. 96 hours. Prerequisites : Phy 411, 412, BCh 411, 412.

#### Phy 518. Biological Transport Processes with Special Reference to the Kidney. 4 hours, term to be arranged.

Topics include: Fick's first and second laws of diffusion; membrane effects (diffusion of ions through an electrical field, molecular sieving, carriermediated diffusion, active transport, osmosis through "leaky" membranes); irreversible thermodynamic treatment of diffusion processes. Pertinent examples from the literature on artificial membranes, frog skin, muscle capillaries, and the renal tubule. Discussion of methods of study of renal function (clearance, micropuncture, "stop flow," and slice techniques) and the counter-current hypothesis for concentration of urine solutes. Reading from monographs and original literature. Conference, 3 hours a week; labora-tory, 6-hour periods on alternate weeks. 72 hours. Prerequisites: Phy 411, 412. calculus, physical chemistry.

#### Phy 519. Advanced Neurophysiology. 4 hours, term to be arranged.

A study of principles of investigation, observation, and inference and an extensive review in depth of the integrative functions of the central nervous system. Conference, 2 hours a week; laboratory, 6 hours a week. 96 hours. Prerequisites : Phy 411, 412, Phy 520, 521, An 511.

#### Phy 520. Energy Exchange. 3 hours, term to be arranged.

Special topics on energy exchange between organism and environment, with special reference to physiologic mechanisms regulating energy balance. The interrelationship between energy intake and energy expenditure in terms of factors operating to maintain constant internal temperature and constant adult body weight. Conference, 2 hours a week; laboratory, 3 hours a week. 60 hours. Prerequisites : Phy 411, 412, BCh 411, 412.

## Phy 521. Respiratory Gas Transport. 3 hours, term to be arranged.

Dynamics of transport of respiratory gases, with emphasis on graphical analysis of pulmonary and circulatory phases of transport. Ventilation-perfusion relationships, unsteady state, gas stores of the body, and exchange and equilibrium of inert gases. Conference, 2 hours a week; laboratory, 3 hours a week. 60 hours. Prerequisite : Phy 411, 412.

### Phy 522. Fetal and Neonatal Physiology. 3 hours, spring term.

Special physiology of the in utero state and of the transition to an independent existence. Placental gas exchange; acid-base homeostasis; fetal and neonatal circulation, anoxia tolerance, thermal homeostasis, and renal functions. Conference, 2 hours a week; laboratory, 3 hours a week. 60 hours. Prerequisites: Phy 411, 412, BCh 411, 412.

## **Clinical** Departments

### Medicine

HOWARD P. LEWIS, Chairman of Department Professors Emeriti

BLAIR HOLCOMB NOBLE WILEY JONES

DAVID W. E. BAIRD MONTE A. GREER HERBERT E. GRISWOLD HANCE F. HANEY CHARLES N. HOLMAN

Professors DANIEL H. LABBY HOWARD P. LEWIS WALTER C. LOBITZ EDWIN E. OSGOOD

LYLE B. KINGERY

MERL L. MARGASON

DEMETRIOS A. RIGAS RAYMOND R. SUSKIND ROY L. SWANK

MATTHEW C. RIDDLE

LEONARD W. RITZMANN

ZOLTON T. WIRTSCHAFTER

ARTHUR J. SEAMAN

JOSEPH B. TRAINER

FRANKLIN J. UNDERWOOD

SHELDON Å. WALKER

JAMES T. SPEROS

PHILIP SELLING

ROBERT E. MASS

ROBERT D. MICHEL

WILLIAM A. NEILL

**JANICE R. STEVENS** 

FREDERIC W. SMITH

IAMES F. MORRIS

JOHN E. TUHY

#### Clinical Professors

Associate Professors Emeriti

Associate Professors

MERLE W. MOORE

ROBERT D. KOLER

IAMES METCALFE

GEORGE B. LONG

FRANK PERLMAN

LEON F. RAY

BERNARD PUROFSKY

Edward E. Rosenbaum

MYRON R. GROVER, JR.

DONALD G. KASSEBAUM

ROBERT D. GOLDMAN

RICHARD T. JONES

† JOHN W. KENDALL

ROY R. MATTERI

DONALD M. PITCAIRN

Associate Clinical Professors

Assistant Professors

THOMAS S. SAUNDERS

ISIDOR C. BRILL

JAMES H. AUSTIN DANIEL M. BACHMAN JOHN A. BENSON, JR. RICHARD L. DOBSON JARVIS GOULD

FRANK W. CROWE **JOYLE DAHL** ROBERT S. DOW HULDRICK KAMMER

AUBREY M. DAVIS

WILLIAM P. GALEN

Morton Goodman

RICHARD E. BAILEY MICHAEL D. BAIRD ROBERT H. BIGLEY I. DAVID BRISTOW C. CONRAD CARTER \*IACK H. FELLMAN

(Neurochemistry) KURT W. AUMANN GEORGE A. BOYLSTON

MARION L. KRIPPAEHNE JOHN J. KRYGIER ERNEST T. LIVINGSTONE **JOHN CLIFFTON MASSAR** 

Assistant Clinical Professors FREDERICK A. J. KINGERY

DONALD E. OLSON LEONARD B. ROSE MARVIN SCHWARTZ JOHN W. STEPHENS WILLIAM J. SWETT

#### Associates

PETER J. G.	ALANTE	LOUIS LINO
-	Clinical Associates	
Arthur W. Berg Arthur M. Bergman	Paul R. Burgner Charles W. Coffen	William Cohen Rudolph M. Crommelin

\* On leave of absence, Max-Planck Institute, Munich, Germany, from Aug. 1, 1963 to July 31, 1964.

† On leave for military service.

HOMER P. RUSH LAURENCE SELLING

WILLIAM H. SHELDON

(Experimental Medicine) JOHN R. WALSH

#### DESCRIPTION OF COURSES

MERLE M. KURTZ

WILBUR L. LARSON

AARNE J. LINDGREN

GORDON L. MAURICE

GUY R. MCCUTCHAN

NORBERT E. MEDVED

SIDNEY BROWNSTONE

CLIFFORD A. FRATZKE

PAUL O. KRETSHMAR

L. WILLIAM LARSON

STEPHEN W. MAKS

RUTH L. MERCER

THOMAS E. MORRIS

WILLIAM R. OLSON

CARL A. PETERSON

CHARLES T. PINNEY

CHARLES T. FISCHER

KARSTEN C. LEWIS

GORDON R. HONDORP

ROY A. PAYNE

JOHN D. O'HOLLAREN

(Dietetics)

WILLIAM M. LAIDLAW

HARRY W. MASENHIMER

John J. Murphy

OTTO C. PAGE

RAYMOND A. MCMAHON

CHARLES E, LITTLEHALES

LAURENCE E. MACDANIELS

Instructors

John R. Flanery Donald E. Forster Marvin C. Goldman Thomas S. Healy Marcus M. Horenstein Jay C. Hoyt William W. Hurst Richard H. Kosterlitz Lewis J. Krakauer Walter J. Kuhl, Jr.

Ernest Jack Benner Douglas R. Bottomly

#### Clinical Instructors William J. Hemphill

SAMUEL T. BEALL WILLIAM S. BECK JOHN A. BLANCHARD \*RICHARD B. BYRD JOHN D. CHASE BRUCE R. CHENOWETH CONRAD A. DELATEUR ESTILL N. DEITZ HAROLD P. DYGERT, JR. STELLA FISHER LEO J. FREIERMUTH DAVID C. FRISCH LEONARD M. GOLDBERG ROBERT H. GRAY ROBERT L. HARE

John P. Conder Ward E. Dickey, Jr. John H. Ellison Eldon L. Erickson

AUBREY M. DAVIS

WILLIAM P. GALEN

CHARLES W. COFFEN

LEONARD M. GOLDBERG

#### Cardiology

Residents

HERBERT E. GRISWOLD, Head of Division

HERBERT E. GRISWOLD

Professors HANCE F. HANEY

Clinical Professor Emeritus

Homer P. Rush

Associate Professors JAMES METCALFE LEONARD W. RITZMANN

Associate Clinical Professors PHILIP SELLING FRANKLIN J. UNDERWOOD

WILLIAM W. HURST

RALPH REAUME

JAMES A. RILEY

GORDON L. MAURICE

I I KAN KLI

Assistant Professors J. DAVID BRISTOW DONALD G. KASSEBAUM

> Assistant Clinical Professors LEONARD B. ROSE

ARD B. ROSE MARVIN SCHWARTZ WILLIAM J. SWETT Clinical Associates

WAYNE R. ROGERS

Herbert Semler

Fellow Cyrus Farrehi

Clinical Instructors

#### **Chest Diseases**

DONALD M. PITCAIRN, Head of Division

MEDICINE

Associate Professors DONALD M. PITCAIRN

Associate Clinical Professor

JOHN E. TUHY

Assistant Professors

JAMES T. SPEROS

JAMES F. MORRIS

JOANNE MACASKILL

#### ROBERT D. MICHEL

Assistant Clinical Professor DONALD E. OLSON

Associate

PETER J. GALANTE

Clinical Associate William Cohen

WILLIAM CORE

Clinical Instructor Charles T. Pinney

Research Assistants

BERIT BERTILSON

#### Diabetes and Metabolism

DANIEL H. LABBY, Head of Division Professor DANIEL H. LABBY Assistant Professor RICHARD E. BALLEY Assistant Clinical Professor JOHN W. STEPHENS Clinical Associates RUDOLPH M. CROMMELIN MARCUS M. HORENSTEIN OTTO C. PAGE Instructor JACK H. HUTCHINSON Clinical Instructor ROBERT L. HARE

JAMES H. BECK

#### T. BETOE NYHEIM

#### Endocrinology

**Research** Assistants

MONTE A. GREER, Head of Division Professor MONTE A. GREER Associate Clinical Professor HULDRICK KAMMER Assistant Clinical Professors KURT W. AUMANN ERNEST T. LIVINGSTONE Clinical Instructor WILLIAM M. LAIDLAW Research Fellow SHIN-ICHI SHIMODA Research Assistants CAROLYN DUYCK ANN STOTT

#### Gastroenterology

JOHN A. BENSON, JR., Head of Division

81

RALPH R. SULLIVAN CHARLES W. WATKINS WARREN S. WELBORN ROBERT D. WILSON GORDON T. WOLFE JAMES V. WOODWORTH

JOSEPH F. PAOUET

HEYES PETERSON

JOHN W. PARTRIDGE

ROBERT E. RINEHART

George M. Robins

WAYNE R. ROGERS

WILLIAM C. SCOTT

WILL L. SENDERS

JOHN L. SOELLING

DAVID K. TAYLOR

GORDON D. HAYNIE

JACK H. HUTCHINSON

ROBERT G. PITTENGER

RALPH B. REAUME

W. PETER RILLING

BEATRICE K. ROSE

BERNARD F. RYAN

Herbert J. Semler John M. Shaw

GEORGE V. SQUIRE

JAMES A. RILEY

WINSTON E. MAXWELL Richard C. Munter Kenneth I. Sutherland William W. Walden

#### Associate Professor JOHN A. BENSON, JR. Associate Clinical Professor GEORGE B. LONG

Assistant Professor FREDERIC W. SMITH

NORBERT E. MEDVED

#### Assistant Clinical Professors GEORGE A. BOYLSTON

JOHN J. KRYGIER

Clinical Associates LEWIS J. KRAKAUER

MARVIN C. GOLDMAN THOMAS S. HEALY

ROBERT D. KOLER

ROBERT H. BIGLEY

ANN AUGUST

DAVID W. GERLITS

SOSAMMA C. JOHN

JODY ANDERSON

Clinical Instructors

LEO J. FREIERMUTH

Fellow

HEYES PETERSON

W. PETER RILLING

JOHN L. SOELLING

CLIFFORD S. MELNYK

Research Assistant LUCY C. STOUT

#### Hematology and Experimental Medicine

EDWIN E. OSGOOD, Head of Division Professors

## EDWIN E. OSGOOD

DEMETRIOS A. RIGAS (Experimental Medicine) Associate Professors BERNARD PIROFSKY ARTHUR J. SEAMAN Assistant Professors ROBERT D. GOLDMAN ROBERT E. MASS RICHARD T. JONES Clinical Instructor ROBERT G. PITTENGER Research Associates JOHN H. BROOKE MARIE L. DUERST **Research** Assistants

Edward A. Johnson DOROTHY ST. HELEN PATRICIA THOMPSON PATRICIA VANBELLINGHEN Residents

LAWRENCE LUTCHER

GORDON T. WOLFE

#### Immunology, Allergy, and Infectious Disease

KATHERINE PRATT

RICHARD L. HARRIS

FRANK PERLMAN, Head of Division Associate Clinical Professor FRANK PERLMAN Assistant Clinical Professor ROY R. MATTERI Clinical Associate GEORGE M. ROBINS Clinical Instructors

JOHN D. O'HOLLAREN

#### Neurology

GEORGE V. SQUIRE

ROY L. SWANK, Head of Division

### MEDICINE

Professor ROY L. SWANK Clinical Professor MERL L. MARGASON Associate Professor JAMES H. AUSTIN Associate Clinical Professor ROBERT S. DOW

Assistant Professors

Associate

LOUIS LINO

Instructors

C. CONRAD CARTER

#### THOMAS FUJITA

Research Associate VICTOR MILSTEIN

\*JACK H. FELLMAN

(Neurochemistry)

Research Fellow WOLFGANG HISSEN

Residents

HUGH RONALD MCMAHON

## Rheumatology

DANIEL M. BACHMAN, Head of Division

Associate Professor

DANIEL M. BACHMAN

Associate Clinical Professor EDWARD E. ROSENBAUM

> Clinical Associates DAVID K. TAYLOR

JANICE R. STEVENS

JOHN GORDON ROTH

HENRY E. STORINO

ROBERT E. RINEHART

DOUGLAS R. BOTTOMLY Clinical Instructor PAUL O. KRETCHMAR **Research** Assistant

Instructor

Belle Dragoon

#### Dermatology

WALTER C. LOBITZ, JR., Head of Division Professors RAYMOND R. SUSKIND WALTER C. LOBITZ, JR. Clinical Professors LYLE B. KINGERY THOMAS S. SAUNDERS Associate Professor RICHARD L. DOBSON Associate Clinical Professors FRANK W. CROWE JOYLE DAHL SHELDON A. WALKER LEON F. RAY Assistant Clinical Professors JOHN CLIFFTON MASSAR

FREDERICK A. J. KINGERY

\* On leave of absence, Max-Planck Institute, Munich, Germany, from Aug. 1, 1963 to July 31, 1964.

83

#### DESCRIPTION OF COURSES

#### Clinical Instructors

BRUCE R. CHENOWETH CONRAD A. DELATEUR DAVID C. FRISCH

WILLIAM J. HEMPHILL BERNARD F. RYAN

**Research** Assistants

ALBERT E. LARNER

**Research** Associates DORIS E. BROPHY

NICHOLAS NICOLAIDES

CECIL SIGAL

STEPHEN SILVER

MARVIN R. YOUNG

JOHN M. SHAW

RALPH R. SULLIVAN

MARY LOU PEARSON

KATHE STRANGFELD

CHARLES W. WATKINS

MARY CAMPBELL ELIZABETH HAINES

MARIAN NEILSON

ROBERT F. BELL GARY W. CAGE JAMES A. CROSS

Residents WALTER G. LARSEN FRANKLIN PASS

#### Dental Medicine

HAROLD J. NOYES, Head of Division

Clinical Professor HAROLD J. NOYES

Clinical Associates

Donald F. Kelly (Pedodontics) Jan J. Muller	Donald R. Porter Norman H. Rickles	Evelyn M. Strange Cecil A. Van Kleek Wilbur N. Van Zile

ROBERT J. BRUCKNER JOHN P. DICKSON

Clinical Instructors JOHN PAUL JARABAK

JAMES T. RULE BHIM S. SAVARA

#### Internal Medicine

DUANE R. PAULSON

#### **REOUIRED COURSES**

#### SECOND YEAR

Med 612, 613, 614. Physical Diagnosis. 3 hours each term.

Systematic lectures on, and demonstrations of, the principles of history taking, physical examination, and the pathophysiological basis for physical signs. Lectures, patient demonstrations, technique practice sessions, and ward rounds. Lectures, 2 hours a week; demonstrations, 2 hours a week. 144 hours.

#### THIRD YEAR

Med 630. Third-Year Medicine. 211/2 hours.

Third-year medicine introduces the student to the study of the broad field of internal medicine by means of lectures, hospital clerkship work, clinic and conference sessions.

Lectures throughout the year present the basic principles of medical diseases and guide the student in his further study of the subject. Hospital clerkships provide opportunity for the intensive study of patients with medical diseases. and active participation, under supervision, in ward rounds and all other exercises and procedures connected with medical ward activity. Particular emphasis is given to the development of skill in history taking, physical examination, and differential diagnosis.

The student attends Medicine Staff Conferences, a special Neurological Teaching Clinic, a one-hour Dermatology Clerkship, and studies selected psychiatric problems with the Department of Psychiatry. Lectures, 2 hours a week each term, fall, winter, and spring; 72 hours. Clerkships, conferences, and clinics, 31 hours a week, one section each term, 372 hours. 444 hours.

#### FOURTH YEAR

### Med 657. Occupational Medicine. 1 hour spring.

Lectures and demonstrations dealing with important industrial health hazards and diseases. 1 hour a week; 12 hours.

#### Med 658. Medical Economics. 1 hour spring.

Series of lectures concerning the economic, sociological, legal and other problems connected with the practice of medicine. Lectures, 1 hour a week: 12 hours.

#### Med 670. Fourth-Year Medicine. 15 hours, one section each term.

Students continue their study of patients in the broad field of internal medicine in the setting of the Outpatient Clinic, where, under the supervision of the staff, they apply the knowledge gained in the third year to the study and care of clinic patients.

Part of the time is spent in the General Internal Medicine Outpatient Clinic, the remainder in clinics of the subspecialty divisions of internal medicine, and in electives. The student spends 2 hours a week for 6 weeks in each of the following subspecialty clinics : Allergy, Cardiovascular Renal, Chest Diseases, Diabetes and Metabolism, Endocrinology, Gastroenterology, Hematology, Neurology, Rheumatology, and Tuberculosis.

All fourth-year students attend a Conference on Medical Therapy once weekly throughout the year and a General Clinical Conference, held by all clinical departments, once weekly during their fourth-year medicine, surgery, and obstetrics and gynecology assignments. Students also study selected psychiatric cases with the Department of Psychiatry.

Conference on Medical Therapy (lecture), 1 hour a week, fall, winter, and spring; 36 hours. General Clinical Conference, 2 hours a week, in sections; 24 hours. General Internal Medicine Outpatient Clinic, 15 hours a week for 6 weeks; 9 hours a week for 6 weeks; 144 hours. (In addition, each student spends 6 hours a week for 6 weeks in Derm 670. Dermatology Outpatient Clinic; 36 hours.) Subspecialty clinics, 10 hours a week; 120 hours. Lectures, 36 hours; clinics and conferences, 288 hours. 324 hours.

#### ELECTIVE COURSES

Med 501. Research in Hematology. Any term, hours to be arranged.

#### Med 505. Reading and Conference. Any term, hours to be arranged.

For third- and fourth-year students. Arrangements may be made with the head of a division of internal medicine.

#### Med 601. **Research.** Any term, hours to be arranged.

Students may elect to conduct research in the various divisions of medicine by arrangement with the chief of the division.

Med 605. Reading and Conference: Chest Diseases. Any term, hours to be arranged.

Conference with the medical resident and staff for the presentation of cases of special interest in the Hospital and Chest Outpatient Service, supplemented by cases from private practice which present current difficult problems in diagnosis and treatment.

#### Med 605. Reading and Conference: Cardiology. Any term, hours to be arranged.

Med 607. Seminar in Medicine. Any term, hours to be arranged.

Med 690. Medical Outpatient Clinic. Any term, hours to be arranged in accordance with the requirements of the regular Outpatient Clinic course. (Fourth year.) Elective credit for completion of clinical work in the department in addition to that required in the regular Outpatient Clinic course.

#### Med 692. Ward Rounds in Endocrinology. 1 hour, any term.

(Fourth year.) Examination and discussion of hospitalized patients with endocrine disease in Multnomah Hospital and Medical School Hospital. Limited to 4 students. 2 hours a week for 12 weeks; 24 hours.

#### Med 693. Human Genetics. 1 hour spring term.

Clinical presentation and lectures designed to introduce students to genetic mechanisms in human disease. Material covered will include mechanism of

gene action, population genetics and chromosomal abnormalities resulting in clinical disease Lectures and lecture demonstrations. I hour a week: 12 hours

#### Med 694. Renal Rounds. 1 hour, one section each term.

Intensive study of selected cases of renal disease in the Multnomah and Medical School Hospitals. Students work in pairs and study assigned patients. Conferences and discussions concerning the diagnosis, treatment, and basic mechanisms of the disorders of these and other similar patients conducted on rounds. Patient study 2 hours a week at any convenient time: rounds 2 hours a week: 48 hours.

#### Med 695. Fundamental Aspects of Disease. 1 hour winter.

Lectures and discussions presenting concepts of disease that have developed from advances in basic and clinical research; principles upon which contemporary research in medical science is based; discussions of current investigation of major disease processes. This course is conducted jointly by the Departments of Medicine and Biochemistry. 1 hour a week; 12 hours.

#### Med 696. Special Case Studies in Medicine. Any term, hours to be arranged.

Students may elect to make detailed studies and reports of selected cases in the fields of cardiovascular, pulmonary, endocrinological and metabolic diseases,

#### Med 697. Hematological Cell Identification. 1/2 hour any term.

Students taught cell identification by actual study of slides under supervision. Maximum of 5 students for three weekly sessions. Given four times each term. 1 hour a week for 3 weeks: 3 hours.

#### Med 698. Case Conference. 1 hour any term.

Analysis of selected case material, utilizing new and selected techniques in the study of pulmonary disease. 2 hours a week: 24 hours.

#### Neurology

#### ELECTIVE COURSES

Neu 691. Neurology Conference. 1 hour any term.

(Fourth year.) Combined conference including neurology, neurosurgery, neuro-ophthalmology, and neuroradiology. Limited to 10 students, 2 hours a week: 24 hours.

Neu 692. Experimental Neurology. Hours to be arranged, any term. Research techniques in neurology, neurochemistry, and electroencephalography. Open to third- and fourth-year students.

#### Neu 693. Clinical Clerkship in Advanced Neurology. 1 hour any term.

Selected neurological cases studied and presented for discussion. Participation in combined neurological, neuroradiological, and neurosurgical conferences. Selected studies in clinical neurology or in electroencephalography.

#### Dermatology

#### **REQUIRED COURSES**

#### THIRD YEAR

- Derm 615, 616. Lectures and Demonstrations in Dermatology, 1 hour each term, fall and winter.
  - Presentation of clinical cases, with detailed discussion of etiology, symptomology, and differential diagnosis. Lectures, 1 hour a week; 24 hours.

#### FOURTH YEAR

Derm 670. Dermatology Outpatient Clinic. 1<sup>1</sup>/<sub>2</sub> hours, one section each term.

- Utilization of outpatient material; clinical and microscopic diagnostic pro-
- cedures; general therapy. 6 hours a week for 6 weeks; 36 hours.

#### PSYCHIATRY

#### Dental Medicine

#### REQUIRED COURSE

#### FOURTH YEAR

## DM 650. Dental Facial Growth and Oral Pathology. 1 hour winter.

Designed to give the medical student a survey of facial growth and oral disease, with discussion of specific diagnostic criteria and treatment of the more common lesions. Coordinated lectures and textbook reading on: Disturbances of oral and facial growth: oral and facial pain; dental caries; pulpitis and periapical pathology: differential diagnosis of radiolucencies in the jawbones: diagnosis of common oral conditions. Lectures. 1 hour a week: 12 hours

### Psychiatry

#### GEORGE SASLOW. Chairman of Department

	Professors	
JOSEPH D. MAT (Medical Psych		George Saslow
	Clinical Professor	
	HENRY H. DIXON	
	Associate Clinical Professo	
CHARLES BRADLEY	JOHN L. BUTLER	Herman A. Dickel
	Assistant Professors	
MICHAEL D. BAIRD PAUL H. BLACHLY	Julia S. Brown (Medical Sociology) D. Duane Denney Lena Kenin	IRA B. PAULY Eugene E. Taylor
	Assistant Clinical Professo	rs
HANS F. FINK	Gerhard B. Haugen Carl V. Morrison	JAMES G. SHANKLIN
	Instructors	
JACK R. HEGREN (Psychiatric So	N L 3	NNCY KOSTERLITZ Sychiatric Social Worker)
	Clinical Instructors	_
THOMAS T. BENNETT Siegfried R. Berthelsdo Clarence E. Caenahan, J Henry H. Dixon, Jr. Grant B. Hughes F. Paul Kosbab		C. RUSSELL PARKER WAYNE M. PIDGEON Allan G. Roberts Mary Anne Smith William W. Thompson John H. Waterman
	Fellow	
	ARLEN QUAN	
	Residents	
Mary Jane Dubinski Richard L. Grant	Richard H. Johnson Delbert M. Kole	THOMAS E. MILLER RICHARD H. PHILLIPS

#### REOUIRED COURSES

LEONARD L. HESTON

#### SECOND YEAR

### Ps 511, 512. Interviewing Techniques and Psychiatric Medicine. 2 hours each term. fall and winter.

Lectures, clinical demonstrations, and student discussions designed to help in the acquisition of basic skills in interviewing, history taking, and the evaluation of patients as persons in a social environment. Differential diagnostic descriptions of major psychiatric entities conclude the course. 3 hours a week: 72 hours.

AGNAR A. STRAUMFJORD

#### DESCRIPTION.OF COURSES

#### THIRD YEAR

Ps 615. Child Psychiatry. 1 hour spring.

Planned to acquaint students with practical aspects of diagnosis and treatment of common emotional, behavior, and learning problems of children. 1 hour a week; 12 hours.

Ps 630. Clinical Clerkship. 11/2 hours, one section each term.

Emphasis on the diagnosis and treatment of a variety of chronic psychiatric inpatient problems. 3 hours a week during the clerkship in medicine; 36 hours.

#### FOURTH YEAR

Ps 670. Psychiatry Outpatient Clinic Clerkship. 2 hours, one section each term. Supervised experience in interviewing, evaluating, and initiating treatment of patients referred to the Psychiatry Clinic. Lectures and demonstrations dealing with the problems of psychiatric therapy. 4 hours a week; 48 hours.

#### ELECTIVE COURSES

Ps 601. Research in Psychiatry. Any term, hours to be arranged.

Ps 605. Reading and Conference in Psychiatry. Any term, hours to be arranged.

Ps 607. Seminar in Psychiatry. Any term, hours to be arranged.

## Radiology

	CHARLES T. DOTTER, Chairman of D	epartment
Clifford V. Allen	Professors Charles T. Dotter	LEE B. LUSTED
	Clinical Professor William Y. Burton	
James B. Haworth	Associate Professors Vincent C. Hinck	Tyra T. Hutchens (Radioisotopes)
Louis H. Frische	Associate Clinical Professor. Selma Hyman	s J. Robert Lee
	Assistant Professor of Radiologic Te HILDA E. DRUM	chnology
	Assistant Professor Harry Shaich (Radiation Physicist)	
WAYNE G. ERICKSEN Arthur F. Hunter	Assistant Clinical Professors Milton D. Hyman John Wayne Loonis	JAMES R. RAINES FRED C. SHIPPS
	Clinical Associate Sherman E. Rees	
Marcia K		HARRY SHAICH Radiation Physicist)
	Clinical Instructors	,
IRVING J. HOROWITZ John L. Howieson Robert S. Miller	HARRY NEWMAN Gregory B. Nichols	Arthur L. Ovregaard George F. Satterwhite Walter R. Stahl
Wellde W. Frey John J. Gallucci Irving E. Joslyn	Residents Melvin P. Judkins James E. Masseman	Merle L. Moberly Joseph V. Scrivani Gerald L. Warnock

#### PUBLIC HEALTH

#### **REQUIRED COURSE**

#### THIRD YEAR

#### Rad 615. Radiographic Diagnosis. 1 hour each term, fall, winter, spring.

Broad experience in the interpretation and reporting of X-rays through weekly film reading assignments followed by small-group case presentation exercises. Lectures on diagnostic principles, radiotherapy, radiation hazard and protection. 1 hour a week; 36 hours.

#### ELECTIVE COURSE

Rad 690. Radiographic Diagnosis. Any term, hours to be arranged.

(Third or fourth year.) Practical experience derived from interpretation of cases from the current files; correction and discussion of student's reports at weekly seminar, final dictation by members of staff. Enrollment limited.

## Public Health and Preventive Medicine

#### ADOLPH WEINZIRL, Chairman of Department

Professor

Adolph Weinzirl

Associate Professor

HAROLD T. OSTERUD

Assistant Clinical Professor RICHARD H. WILCOX

Instructor

RICHARD L. LESSEL

Clinical Instructors

F. Sydney Hansen

ELTON KESSEL

SAMUEL B. OSGOOD

#### **Environmental Medicine**

THOMAS L. MEADOR

RAYMOND R. SUSKIND, Head of Division Professors

A. Wesley Horton

RAYMOND R. SUSKIND

#### REQUIRED COURSES

#### First Year

#### PH 411. Statistical Methods as Applied to Medicine. 2 hours spring.

Introduction to elementary statistics useful in medical practice and research. Lectures, 2 hours a week; laboratory, 2 hours a week. 48 hours.

#### Second Year

PH 512. Epidemiology. 1 hour winter.

Environmental factors in health and disease, including air, water, excreta, temperature, humidity, ventilation, etc. Lectures and recitations, 1 hour a week. 12 hours.

#### PH 513. Epidemiology. 3 hours spring.

Principles of epidemiology illustrated by clinical and epidemiologic aspects of common communicable and other diseases. Lectures and recitations, 2 hours a week; laboratory or clinic, 3 hours a week. 60 hours.

#### THIRD YEAR

#### PH 511. Principles of Public Health. 2 hours winter, 1 hour spring.

The general principles of public health activities; control of communicable diseases; organization of Federal, state, local, and other health agencies; elements of infant, school, and industrial hygiene; vital statistics. Lectures, recitations, and discussions. 3 hours a week winter, 1 hour a week spring. 36 hours.

#### DESCRIPTION OF COURSES

#### ELECTIVE COURSES

PH 501. Research. Any term, hours to be arranged. PH 505. Reading and Conference. Any term, hours to be arranged. PH 507. Seminar. Any term, hours to be arranged.

## Surgery

J. ENGLEBERT DUNPHY, Chairman of Department

#### **General Surgery**

	Professors Emeriti	
WILLIAM K. LIVING	STON EL	JGENE W. ROCKEY
	Professors	
J. ENGLEBERT DUNPHY	CLARE G. PETERSON	*Robert A. Wise
	Clinical Professors	
John C. Adams	Arthur C. Jones	MILLARD S. ROSENBLATT
,	(Physical Medicine)	
	Associate Professor	
	WILLIAM W. KRIPPARHNE	
	Associate Clinical Professors	
Asses M. Daman	Clifford E. HARDwick	OLIVER M. NISBET
Allen M. Boyden	MATTHEW MCKIRDIE	OLIVER M. NISBET
	Assistant Professors	
WILLIAM S. FLETCHER	STANLEY W. JACOB	R. MARK VETTO
	Assistant Clinical Professors	
MARTIN A. HOWARD	John F. Kane	John P. Trommald
RUSSELL L. JOHNSRUD	DONALD R. LAIRD	WERNER E. ZELLER
	Joseph W. Nadal	
	Clinical Associates	
HARVEY W. BAKER	ARCH DIACK	J. KARL POPPE
JOHN W. BASSETT	THOMAS J. FOX	JOSEPH M. ROBERTS
Adalbert G. Bettman	WILLIAM M. GARNJOBST	DAN M. STEFFANOFF
DARRELL C. BOLLAM JOHN G. P. CLELAND	John M. Guiss Russell G. Gustavson	Edward E. Wayson Nathaniel D. Wilson
JOHN G. P. CLELAND	RUSSELL G. GUSTAVSON ROBERT W. MARCUM	NATHANIEL D. WILSON
	Instructors	
JAMES H. FOSTER	RODNEY H. HERR	THOMAS K. HUNT
JALIO 11, 2 OSIER		
	Clinical Instructors	<b>N W N</b>
RICHARD P. ANDREWS JACK E. BATTALIA	Bernard P. Harpole John F. Hayes	Robert W. Patton Irving Puziss
HARRY G. BECKWITH	Toshio Inahara	Melvin M. Reeves
FREDERIC H. BENTLEY	RODERICK L. JOHNSON	WALTER C. REINER
PAUL M. BROWN	REINHOLD KANZLER	EDWARD E. RIPPEY
NATHAN J. CAMPBELL	GARY H. LEAVERTON	WILLIAM M. ROSENBAUM
KEITH M. CLISBY	G. PRENTISS LEE	WILLARD D. ROWLAND
HUGH DONALD COLVER	VERNER V. LINDGREN	NATHAN SHLIM
PETER DEWITT	RICHARD H. LINDQUIST	PHILIP A. SNEDECOR
ZANLEY C. EDELSON	R. KENT MARKEE	EUGENE S. SULLIVAN
LESTER H. EISENDORF	WILLARD L. MATHIESON	ROBERT H. TINKER
GUY W. GORRELL LEROY E. GROSHONG	DAVID B. MILLER, JR. RAYMOND E. MOORE	Alvin O. Uhle James W. Wiley
J. Gordon Grout	(Physical Medicine)	GREGG D. WOOD
ROGER W. HALLIN	H. MINOR NICHOLS	JAMES A. WOOD

#### Research Fellow P. J. DESHPANDE

\* On leave of absence, Adviser in Surgery, Faculty of Medicine, Chiengmai, Thailand.

#### SURGERY

#### Residents

WALTER F. ALEXANDER, JR. WILLIAM C. AWE JOHN C. BIGELOW JAMES J. CHANDLER RICHARD D. CHAPMAN ROBERT C. DAVIS DANIEL L. DENNIS

ER, JR. LATHAM FLANAGAN, JR. THOMAS J. FOGARTY KEITH F. HARCOURT ROBERT P. HODAM N JACK D. JEFFERSON CHARLES C. JENKINS RICHARD A. KINGSBURY WILLIAM MCALLISTER KEITH A. ROBERTSON RALPH D. ROBERTSON RICHARD C. ROGERS RICHARD G. SANDERSON RONALD W. VINYARD ROBERT L. WEBB

Rex J. Underwood

BETTY B. THOMPSON

ELLERY L. LANDERS

MARION E. PALMER

PAUL E. SCHAFF

BRUCE A. PETERS

CHARLOTTE A. THOMPSON

#### Anesthesiology

FREDERICK P. HAUGEN, Head of Division

Professor

FREDERICK P. HAUGEN Associate Professors

JOHN CLARENCE ROTH

Clinical Associate

ELLERY D. LANDERS Instructors

Clinical Instructors DONALD P. DOBSON

Residents

J. COLEMAN EDWARDS

CHRISTINE L. MACKERT

MARILYN A. MICKEY

IAMES V. HARBER

DAVID GOWING

John O. Branford Donald M. Brinton Genevieve S. Burk

Annelene J. Amirana

SAMUEL T. BENNETT CARL F. CHAPMAN

#### Cardiopulmonary Surgery

ALBERT STARR, Head of Division Associate Professor ALBERT STARR Associate Clinical Professor WILLIAM S. CONKLIN Assistant Clinical Professor LAWRENCE M. LOWELL Associate

COLIN W. McCord

STANLEY F. BERQUIST

Clinical Instructors Robert W. Kendall Charles H. Sparks

WILLIAM R. SWEETMAN

#### Neurosurgery

\*GEORGE M. AUSTIN, Head of Division Professor GEORGE M. AUSTIN Clinical Professor JOHN RAAF Associate Professor PHILIP D. GORDY Assistant Clinical Professor EDWARD W. DAVIS

• On leave of absence, Department of Physiology, Cambridge University, England, from Sept. 15, 1963 to Sept. 14, 1964.

#### 91

#### Clinical Associate EDWARD K. KLOOS

Instructor

GEORGE W. SCHEMM

Residents

Clinical Instructors

RALPH F. KAMM

RAY V. GREWE BRUCE N. KVERNLAND

HAROLD D. PANTON

CARL J. BELBER LEWIS J. BROWN

JOHN P. DENNIS

AL H. KUYKENDALL JOEL L. SERES

#### Orthopedic Surgery

WILLIAM E. SNELL. Head of Division Professors Emeriti

HARRY C. BLATR

C. ELMER CARLSON Associate Professor

WILLIAM E. SNELL Associate Clinical Professors

E. GEORGE CHUINARD

JOHN F. ABELE

PAUL CAMPBELL

JOSEPH H. GILL

RODERICK E. BECG

GEORGE W. COTTRELL

FRANK B. SMITH

GURNEY A. KIMBERLEY

LAURENCE R. LANGSTON

DONALD B. SLOCUM

JAMES A. MASON

FAULKNER A. SHORT

EDWIN G. ROBINSON

RICHARD L. MERCER

JOHN W. THOMPSON

RICHARD C. ZIMMERMAN

JAMES D. NELSON

#### Assistant Professor RODNEY K. BEALS

TOR B. DAVIS

LAWRENCE NOALL

Assistant Clinical Professors RICHARD F. BERG

HAROLD E. DAVIS Clinical Associates RICHARD J. HOPKINS

ORVILLE N. JONES

THOMAS J. BOYDEN ROBERT E. BUCKMASTER RAYMOND A. CASE, JR. WINFRED H. CLARKE HOWARD L. CHERRY LAURENCE I. COHEN THOMAS A. EDWARDS RICHARD P. EMBICK

MICHAEL BASKIN CHARLES A. BONNETT MCGREGOR L. CHURCH ROBERT F. CORRIGAN

Clinical Instructors CHARLES A. FACAN CARL L. HOLM H. FREEMAN FITCH CALVIN H. KIEST ROBERT J. FRY LOUIS P. GAMBEE ROBERT L. LARSON NORMAN D. LOGAN CALVIN E. GANTENBEIN ROLLAND C. MERRIFIELD SAMUEL F. GILL SAMUEL OSBORN HARRY E. GROWTH ROBERT M. RANKIN

#### Residents

ARTHUR L. ECKHARDT JOHN W. GILSDORF HOWARD E. JOHNSON

JOHN HARDER

#### Urology

CLARENCE V. HODGES, Head of Division

Professor

CLARENCE V. HODGES

Clinical Professor

JOHN R. HAND

Associate Clinical Professors

J. SCOTT GARDNER

THOMAS A. DAVIS

THOMAS R. MONTGOMERY Assistant Clinical Professors

ROBERT B. HIGGINS

#### Clinical Associates

EMERSON J. COLLIER THOMAS A. DAVIS CHARLES FERGUSON

THEODORE H. LEHMAN ROBERT J. MOORE CURTIS A. MACFARLANE ARNOLD RUSTIN JOHN G. VANDENBERG

#### SURGERY

Clinical Instructors

ROBERT B. GREENE, IR. ROBERT L. KALEZ

Residents ROBERT C. LOOMIS RUSSELL N. SACCO

TVAN L. SANDOZ IOHN H. STONE JAMES K. VARNEY

DENIS C. O'SULLIVAN

GERALD W SCHWIEBINGER

DAVID P. PAULI.

#### REQUIRED COURSES

#### SECOND YEAR

#### Sur 610. Introduction to Surgery. 1 hour winter, 2 hours spring.

Designed to introduce the student to the history and broad principles of surgery. Application of the basic sciences to surgical practices, with particular reference to such topics as asepsis, shock, wound healing, cancer, infection, the metabolic response to injury, etc. Lectures, 1 hour a week, 12 hours. winter: 2 hours a week, 24 hours, spring, 36 hours,

#### THIRD YEAR

#### Sur 630. Third-Year Surgery. 201/2 hours.

The third-year course in surgery gives the student a broad perspective built around concepts of injury and disease. In the second year he learned the principles of wound healing. The third year focuses on the problems of wound healing in relation to surgery of the gastrointestinal tract. The student is also introduced to the techniques of physical examination, asepsis, and operatingroom conduct. Emphasis is placed primarily on small-group teaching with ward rounds, seminars, and case-analysis clinics. Patient study and experience in general surgery is provided in the General Surgery Outpatient Clinic. In orthopedics and urology the student works both in a hospital clerkship and in the Outpatient Clinic.

Experience in the Outpatient Clinic and in the wards is supplemented by caseanalysis clinics and seminars. A systematic series of lectures covering the diagnosis and treatment of orthopedic, urological, and general surgical conditions supplements clinical experience and serves as a guide for student reading. In anesthesiology, an integrated series of lectures and demonstrations covers the history of anesthesia, applied physiology, anesthetic techniques, and the use of anesthetic agents. Neurosurgical lectures are designed to acquaint the student with the manner of diagnosis and the types of treatment available to patients with the major problems of neurological surgery. Conferences, clinics, patient studies, and demonstrations are held in physical medicine and clinical pathology.

Students spend six weeks on general surgery, three weeks on orthopedic surgery, and three weeks on urology.

Lectures in General Surgery (winter and spring), Orthopedic Surgery (winter), Urology (fall), and Anesthesiology (spring); 60 hours. General Surgery Clerkship, 72 hours; Orthopedic Surgery Outpatient Clinic, 36 hours; Urology Clerkship, 72 hours; Urology Outpatient Clinic, 24 hours; Orthopedic Surgery Clerkship, 75 hours; Orthopedic Surgery Outpatient Clinic, 21 hours; Neurosurgery Seminar, 12 hours; Regional Anesthesia, 12 hours: Fractures and Joint Injuries Conference, 24 hours; Physical Medicine, 24 hours; Clinical Pathology, 12 hours; 372 hours. 432 hours.

#### FOURTH YEAR

#### Sur 670. Fourth-Year Surgery. 19 hours.

The fourth-year course is designed to give the student close continuous contact in the hospital with surgical patients. In the second year the student was shown the broad principles of surgery. In the third year the application of these principles to specific disease areas was demonstrated and learned. In the fourth year the student sees the practical application of these principles to individual patients and becomes, for the first time, an active member of

### 03

#### ANIS M BEHNAM CHARLES E. CATLOW. IR.

LYALL CRARY, JR. WILLIAM Y. DUNCAN III JERRY D. GIESY

G. DONALD BEARDSLEY

#### DESCRIPTION OF COURSES

the surgical team and participates in diagnosis, preoperative preparation, operations, and postoperative care. By continuous contact with the patient, he learns the total responsibilities of surgery and the surgeon.

Clerkship experience in neurosurgery, ophthalmology, and otolaryngology is included. Lectures in urology and surgery round out the student's knowledge. The student attends the weekly General Clinical Conference.

Students spend six weeks on general surgery, two weeks on eye, ear, nose, and throat, and two weeks on neurosurgery.

Lectures in general surgery (winter) and urology (fall), 24 hours. General Clinical Conference, 24 hours; General Surgical Clinic, 24 hours; General surgery clerkship, 222 hours; eye clerkship, 52 hours (22 additional hours included in Eye 670); ear, nose, and throat clerkship, 16 hours (58 additional hours included in ENT 670); neurosurgery clerkship, 74 hours; 412 hours. 436 hours.

#### ELECTIVE COURSES

Sur 601. Research. Any term, hours to be arranged.

For third- or fourth-year students.

94

- Sur 690. Surgery Outpatient Clinic. Any term, hours to be arranged in accordance with the requirements of the regular Surgery Outpatient Clinic Course.
- Anes 601. Research. Any term, hours to be arranged.

For third- or fourth-year students.

Neu Sur 601. Research. Any term, hours to be arranged.

Clinical and basic research projects in neurosurgery. Intended for students primarily interested in careers in neurology and neurological surgery.

Neu Sur-640. Differential and Regional Neurosurgical Diagnosis and Therapeutics. 1/2 hour.

Discussions and demonstrations of the altered neurophysiologic background and anatomy encountered in patients with neurosurgical problems. Emphasis on student interest and participation in discussion of the basic concepts involved. Lectures and demonstrations. 1 hour a week: 12 hours.

Orth Sur 601. Research. Any term, hours to be arranged.

For third- or fourth-year students.

Orth Sur 690. Orthopedic Outpatient Clinic. Any term, hours to be arranged in accordance with the requirements in the regular Orthopedic Outpatient Clinic course.

Ur 601. Research. Any term, hours to be arranged. For third- or fourth-year students.

Ur 690. Urology Outpatient Clinic. Any term, hours to be arranged in accordance with the requirements in the regular Urology Outpatient Clinic course.

## Ophthalmology

KENNETH C. SWAN, Chairman of Department Professor KENNETH C. SWAN

Clinical Professors AUGUSTUS B. DYKMAN

> Associate Professors LEONARD CHRISTENSEN

E. MERLE TAYLOR

ROBERT P. BURNS

Assistant Professor VIRGINIA L. WEIMER

#### OTOLOGY, RHINOLOGY, LARYNGOLOGY 95

Assistant Clinical Professors EDWARD N. MCLEAN

THOMAS E. TALBOT ROBERT W. ZELLER

RICHARD E. MARKLEY

EDWARD N. MCLEAN

IOSEPH I. MORELAND

PAUL J. ROBINSON

GERALD A. TERMAN

#### Associate MARVIN C. HINES Clinical Associates

Alfred J. Kreft GEORGE P. LYMAN

ROBERT E. FISCHER

W. LEIGH CAMPBELL ROBERT C. COWGER

JAMES DELP DONALD R. JOHNSON

Instructor

RICHARD A. LALLI

Clinical Instructors

#### REQUIRED COURSES

Eye 615. Eye. 1 hour fall.

a week: 12 hours.

FOURTH YEAR

Eye 650. Eye. 1 hour winter.

Ophthalmology in relation to systemic disease. Lectures, demonstrations, and quizzes. I hour a week; 12 hours.

Eye 670. Eye Outpatient Clinic. 1 hour, one section each term.

Student participation for two weeks in the patient-care programs in the adult and children's eye service. Demonstration and use of instruments and techniques for ophthalmic diagnosis and treatment. Part of the course is devoted to the study of ophthalmic manifestations of systemic diseases. 11 hours a week for 2 weeks; 22 hours. (Students also spend 52 hours on eye clerkship as part of Sur 670.)

#### ELECTIVE COURSES

Eye 601. Research. Any term, hours to be arranged. Eye 690. Eye Outpatient Clinic. Any term, hours to be arranged in accordance

with the requirements of the regular Eye Outpatient Clinic course (Eye 670).

## Otology, Rhinology, and Laryngology

### DAVID D. DEWEESE, Chairman of Department

### Professor DAVID D. DEWEESE

Clinical Professors LESTER T. JONES GEORGE E. CHAMBERLAIN PAUL BAILEY ROBERT M. HANSEN Assistant Clinical Professors T. GLENN TEN EYCK CLIFFORD KUHN WILLIAM M. BOLTON BRUCE L. TITUS DONALD C. METTLER LEWIS W. JORDAN PAUL B. MYERS Clinical Associates KENNETH D. SMYTH GEORGE C. SAUNDERS

H. VICTOR ADIX

ROBERT V. HILL

JOHN P. KEIZER

PAUL F. BAILEY

ROBERT H. BEDROSSIAN

DONALD W. DEERING CLYDE H. DUVALL, JR. WALTER R. ENDERS

> Residents KENNETH S. KILBORN

SAM L. MEYER

K. NOLEN TANNER HENRY J. L. VAN DYK

THIRD YEAR

Diseases of the eye and adnexa. Lectures, demonstrations, and guizzes. 1 hour

RICHARD A. HODGSON

DONALD H. HOLDEN

DARRELL W. LANDREY

JAMES D. IMBRIE

#### Clinical Instructors BYRON L. FORTSCH

OSCAR C. CHOWNING, JR. ROBERT R. COOPER JAMES D. DIXON (Audiology)

WARREN E. JOHNSON (Audiology) ALEXANDER E. PETROFF WILLIAM D. SWANCUTT

#### Residents

RUPERT O. BROCKMANN EDWIN C. EVERTS DONALD H. HEITHECKER

RICHARD P. PANIAN ALEXANDER J. SCHLEUNING IT RICHARD L. SWANSON

#### REOUIRED COURSES

#### THIRD YEAR

## ENT 615. Ear, Nose, and Throat. 1 hour spring.

An integrated series of lectures, demonstrations, motion pictures, and informal discussions reviewing the basic anatomy, physiology, and symptomatology of the ear, nose, and throat diseases, with emphasis on diagnosis. 1 hour a week: 12 hours.

#### FOURTH YEAR

ENT 670. Fourth-Year Ear, Nose, and Throat. 21/2 hours, one section each

Inpatient hospital rounds and bedside teaching, outpatient examination, diagnosis, use of special instruments and treatment programming under supervision, and workup of patients and assigned problems. In addition to the inpatient and outpatient examination, surgical cases are followed to the operating room and afterwards. Selected time is given to textbook review and basic anatomy. The student is also introduced to the problems of the hard of hearing from diagnostic, treatment, and rehabilitation viewpoints, including special education. Clerkship, 18 hours a week for 2 weeks; Outpatient Clinic, 11 hours a week for 2 weeks. 58 hours.

### ELECTIVE COURSES

ENT 601. Research. Any term, hours to be arranged.

ENT 690. Ear, Nose, and Throat Outpatient Clinic. Any term, hours to be arranged in accordance with the requirements in the regular Ear, Nose, and Throat Outpatient Clinic course. (ENT 670). (Sixteen additional hours included in Sur 670.)

## Obstetrics and Gynecology

RALPH C. BENSON, Chairman of Department Professors

RALPH C. BENSON

HOWARD J. TATUM

Clinical Professor

HOWARD C. STEARNS

Associate Professors ANTONIO E. COLAS

RAPHAEL B. DURFEE

GOODRICH C. SCHAUFFLER

WILLIAM M. WILSON

## Associate Clinical Professors

DUNCAN R. NEILSON

DAVID W. JAMES

GEORGE H. LAGE

F. KEITH MARKEE

ALFRED N. MARSHALL

GERALD E. KINZEL

Assistant Professor FRANK SHUBECK Assistant Clinical Professors

WILLIAM L. HARTMANN

THEODORE M. BISCHOFF RODERICK C. BLATCHFORD MELVIN W. BREESE W. RONALD FRAZIER REMY W. FULSHER

CLIFFORD FEARL

GUNNAR E. C. NELSON

J. OPPIE MCCALL, JR. MAX H. PARROTT Jesse L. Ray WILLIAM O. THOMAS JAMES M. WHITELY

#### OBSTETRICS AND GYNECOLOGY

#### Clinical Instructors

RICHARD W. FRANKLIN

Residents MARK R. HANSCHKA

BLAINE L. HOSKINS

BURTON W. NEWTON HAROLD E RAY **JACK M. SCHNEIDER II** 

BENJAMIN B. JONES

DAVID W. MOORE

LOSEPH C MITCHELL

EDWARD N. PETERSON

ELIZABETH H. SCHIRMER

OUINTEN SCHERMAN

THOMAS A. TREANOR

#### **REOUIRED COURSES**

#### THIRD YEAR

#### Obs-Gyn 630. Third-Year Obstetrics and Gynecology. 10<sup>1</sup>/<sub>2</sub> hours.

HARRY A. LEE

Lectures, demonstrations, and outpatient clinic work in obstetrics and gynecology. The lectures include discussions of the anatomy of the female pelvis and genital tract; female genital development, function, and disease; the physiology and diagnosis of pregnancy, and the course and management of normal and abnormal labor and the puerperium. Obstetrical techniques with manikin demonstration are presented.

Outpatient clinic work in obstetrics includes prenatal and postnatal clinics. A special obstetric problem clinic considers complications of pregnancy. Gynecology outpatient clinics provide opportunity for the examination and study of patients, and experience with problems of office gynecology, postoperative follow-up, and cancer detection. Gynecological oncology and pathology are demonstrated.

Lectures, 2 hours each week, fall and winter terms, 48 hours. Obstetrics Outpatient Clinics, 20 hours a week for 6 weeks, in sections, 120 hours ; Gynecology Outpatient clinics, 6 hours a week for 6 weeks, in sections. 36 hours. 204 hours.

#### FOURTH VEAR

#### Obs-Gyn 670. Fourth-Year Obstetrics and Gynecology, 9<sup>1</sup>/<sub>2</sub> hours.

Fourth-year students continue their study of obstetrics and gypecology by means of hospital clerkships, attendance and participation in deliveries, and work in the Gynecology Tumor Clinic.

Obstetrical cases in the hospital examined and followed: active participation in ward rounds and teaching conferences. Each student must observe 12 deliveries, participate in at least 6 deliveries, and follow the course of the mother and child during an assigned period. Students also examine and follow assigned gynecological hospital patients and participate in ward rounds and conferences. Attendance at Gynecology Tumor Outpatient Clinic and Therapy Conference once weekly is required.

Obstetrics and Gynecology Clerkship, 33 hours a week for 6 weeks, in sec-tions; 198 hours. Gynecology Tumor Clinic, 3 hours a week for 6 weeks, in sections; 18 hours. General Clinical Conference, 2 hours a week for 6 weeks: 12 hours, 228 hours,

#### ELECTIVE COURSES

- Obs-Gyn 601. Research. Any term, hours to be arranged.
- Obs-Gyn 607. Obstetrics Seminar. Any term, hours to be arranged. Third or fourth years.
- Obs-Gyn 640. Fetal Neonatal Death Conference. 1/2 hour, any term.
- Obs-Gyn 690. Obstetrics and Gynecology Outpatient Clinic. Any term, hours to be arranged in accordance with the requirements in the regular Obstetrics and Gynecology Outpatient Clinic courses.

RICHARD N. BOLTON LE ROY S. CASPERSEN CHARLES L. CHAVIGNY C. LOUISE CLANCY ENRIQUE M. DE CASTRO JAMES W. FERGUS

GEORGE S. HARA

TACK W. BELL PETER L. CRANDALL KIRK E. EVANS

MALCOLM E. FULLER ROBERT B GREENE PHILIP H. HENDERSON, IR. WILLIAM W. HICKS, IR. ROBERT C. LACKSON

## **Pediatrics**

#### RICHARD W. OLMSTED, Chairman of Department

#### Professors

Clinical Professors

Associate Professors

Associate Clinical Professors

Assistant Professors

Assistant Clinical Professors

RICHARD W. OLMSTED

George W. Dana

SCOTT GOODNIGHT

GEORGE R. KERR

JOSEPH T. HART

\*Peter H. Hurst

JOHN A. LARRABEE

JOHN ARTHUR MAY

KATHRINE S. FRENCH

GEORGE A. NASH

EDGAR M. RECTOR

(Anthropology) MICHAEL J. MILLER Clinical Instructors

WILLIAM E. HILL

DONALD F. KELLY

LOUIS R. MCKAEL

HARRY C. MORSE

KIT G. JOHNSON

PETER K. F. LO

FRANK M. JACOBSON

ROBERT J. MEECHAN

VICTOR D. MENASHE

EDWARD L. HENDRICKS

DAVID W. MACFARLANE

Instructors

Јонн В. Ізом

RUDOLPH C. H. ENGEL

HEROLD S. LILLYWHITE (Speech Pathology)

DONALD E. PICKERING RICHARD L. SLEETER

#### JOSEPH B. BILDERBACK

ALLAN J. HILL, JR.

MARTIN H. LEES

ALVIN D. WERT

ROBERT L. TIPS

FRIEDA M. WEINER

GEORGE J. SCHUNK

LENDON H. SMITH

CHARLES VARGA

NORTON B. YOUNG

MARILYN A. NELSON

WILLIAM M. SNOOK

ROBERT E. THORNFELDT

JOHN H. SPRINGER

GEORGE S. SMITH

(Audiology)

JOHN L. STEVENSON

CLEMENS W. VAN ROOY

GEORGE F. WALLIKER

JAMES P. WHITTEMORE

L. PAUL RASMUSSEN

WILLIAM W. ORNDUFF

S. GORHAM BABSON WILLIAM M. CLARK, JR.

MORRIS L. BRIDGEMAN

ROBERT W. BLAKELEY (Speech Pathology) ROBERT A. CAMPBELL

CARL G. ASHLEY John H. Benward DANIEL K. BILLMEYER JOHN W. BUSSMAN QUINTEN W. COCHRAN WALTER A. GOSS JOHN R. HANSEN

WARREN H. FAY (Speech Pathology)

HENRY L. BOEHNKE LEROY O. CARLSON

W. ROBERT DAY MORTON G. ELEFF LYND L. FOLTS

CAROLINE KEEGAN DUEGER JOHN M. GEVURTZ JAMES T. HARTFORD

HOUSHANG A. HATAFI JOHN C. SELVER NED J. WHITCOMB ELDON W. YOUNGER

#### **REQUIRED COURSES**

Residents

#### THIRD YEAR

Ped 630. Third-Year Pediatrics. 11 hours.

Third-year pediatrics instruction includes lectures and clerkship. The lectures provide a survey of pediatrics from a correlative standpoint, supplemented by pertinent demonstrations. The clerkship provides the opportunity for the student to study and examine a wide spectrum of pediatric patients and learn to assume ward responsibility under direct supervision of the staff. Individual and group discussions are included as a regular part of the work. Lectures, one hour a week, each term, fall, winter and spring; 36 hours. Ward Clerkship, 32 hours a week for 6 weeks, in sections; 192 hours. 228 hours.

#### FOURTH YEAR

Ped 670. Fourth-Year Pediatrics. 9 hours, one section each term.

The student continues his study of pediatrics in an outpatient clinic setting and participates actively, under staff supervision, in the study and care of

\* On leave of absence.

#### PEDIATRICS

pediatric patients in the various pediatric clinics. Part of his time is spent in the General Pediatric Outpatient Clinic, and the remainder in the specialty clinics of pediatrics, each of which meets 2 hours each week for 6 weeks. The specialty clinics are Allergy, Cardiology, Endocrinology, Hematology, Metabolism, and Neurology. Individual and group discussions are held in all clinics. General Pediatric Outpatient Clinic, 15 hours a week for 6 weeks, in sections: 90 hours. Specialty Clinics, 20 hours a week for 6 weeks, in sections; 120 hours. 210 hours.

#### ELECTIVE COURSES

Ped 601. Research. Any term, hours to be arranged

#### Ped 640. Fetal Neonatal Death Conference. 1/2 hour, any term.

Review of the pathology of predelivery and postnatal period. Discussion of the likely causes of death from the clinical, gross, and microscopic review of each case. 1 hour a week; 12 hours.

#### Ped 641. Congenital Heart Disease. 1 hour, one section each term.

Students have an opportunity to examine patients with congenital heart disease in the Crippled Children's Division under the guidance of consultants from the Departments of Medicine, Radiology, Surgery, and Pediatrics. 2 hours a week; 24 hours.

Ped 690. Pediatric Outpatient Clinic. Any term, hours to be arranged in accordance with the requirements in the regular Pediatrics Outpatient Clinic course (Ped 670).

98

# Special Programs

# Graduate Studies

THE UNIVERSITY OF OREGON MEDICAL SCHOOL offers graduate programs in the basic medical sciences, leading to the Master of Science and Doctor of Philosophy degrees; the degrees are conferred by the University of Oregon upon recommendation of the faculty of the Medical School. A combined program leading to both medical and basic science graduate degrees is also offered. Work leading to the Master of Science or Doctor of Philosophy degree is offered in anatomy, bacteriology, biochemistry, medical psychology, pathology, pharmacology, and physiology. Work toward the master's degree is offered in medical technology.

## Recommended Preparation for Graduate Work

For admission to graduate studies an applicant must have a Bachelor of Arts or Bachelor of Science degree from an accredited college. Reading ability in a foreign language is highly desirable for applicants expecting to become candidates for the Master of Science degree. Reading ability in two modern foreign languages is not essential for admission to graduate studies, but must be demonstrated before the degree of Doctor of Philosophy is granted. It is highly desirable that all applicants have completed undergraduate courses in elementary statistics; training in statistical methods is required for all candidates for advanced degrees.

The subjects and credits required for admission to the Medical School are recommended for admission to graduate studies. In addition, the several departments offering graduate work generally require certain of the following:

Anatomy: comparative anatomy, genetics, general physiology, microtechniques.

Bacteriology: general microbiology.

Biochemistry: physical chemistry and mathematics through differential and integral calculus (essential for students who intend to work for the Ph.D. degree, and desirable for master's candidates). Additional courses in analytical and organic chemistry recommended for all graduate students.

Pathology: advanced courses in biology and chemistry.

Pharmacology: physical chemistry, advanced organic chemistry.

Physiology: advanced courses in biology, chemistry, physics, mathematics.

Medical Psychology: general and advanced psychology.

Further information concerning qualifications for graduate study may be obtained from the Registrar's Office or from the chairman of the department in which the student plans to work.

### Admission to Graduate Status

Admission to graduate-student status is contingent upon (1) application by the student on forms available from the Registrar of the Medical School, (2) recommendation by the chairman of the department in which the student desires to work, and (3) approval by the Graduate Council and the dean of the Medical School. As a part of the application data, satisfactory scores on the aptitude test and on one or more of the advanced-test portions of the Graduate Record Examination are required to be furnished by the applicant. Only candidates with superior college records or presenting other clear evidence that they have a capacity for productive scholarship will be considered. The qualifications of students expecting to continue graduate studies after receiving a master's degree will be reviewed by the Graduate Council.

Acceptance by a student of admission to graduate status is regarded as a declaration of intent to complete a program of graduate study prior to application for enrollment in other Medical School training programs.

#### Standards of Performance

Graduate students are graded on the same basis as medical students in the courses they take in the Medical School. Graduate credit is granted only for course work in which grades of A, B, or C are earned. A minimum yearly weighted grade-point average of 3.00 must be maintained in courses in the student's major field. Failure to maintain an adequate grade-point average will result in action recommended by the chairman of the department and the Graduate Council.

#### Admission to Candidacy for a Graduate Degree

Admission to graduate status is not equivalent to admission to candidacy for a graduate degree; the latter is granted only after the student has demonstrated knowledge of the fundamentals of his field and ability to perform work of graduate character. A written qualifying examination is required of students desiring to become candidates for the degree of Doctor of Philosophy, and may also be required, at the discretion of the major department and Graduate Council, of students desiring to become candidates for the Master of Science degree. The qualifying examination is given by the major department in which the student is registered and covers the broad field of his background preparation. It must be taken not later than the spring or summer term prior to the academic year in which the degree is to be received. The student becomes eligible to take the qualifying examination for candidacy for the degree of Doctor of Philosophy after he has passed reading examinations in two modern foreign languages.

Admission to candidacy for an advanced degree is determined by the Graduate Council after review of the examination, the scholastic record of graduate work, and the recommendation of the student's major department chairman.

#### **Requirements for Graduate Degrees**

(1) Residence. Academic residence is established by registration for graduate credit in the University of Oregon Medical School. For the Master of Science degree a minimum of three academic terms in residence as a graduate student is required. For the Doctor of Philosophy degree a minimum of six academic terms in residence as a graduate student is required. Interruptions in residence are undesirable but may be permitted by joint agreement of the major department and Graduate Council.

(2) Duration of Candidacy. For the master's degree a student must be a candidate for the degree for at least one academic term; for the doctor's degree a student must be a candidate for three academic terms.

(3) Hours of Graduate Work Required. (a) For the degree of Master of Science 30 term hours of graduate credit in the major department and 15 hours of credit in a minor department are required.

(b) For the degree of Doctor of Philosophy a total of 135 term hours of graduate credit is required. Of this total, a minimum of 100 hours must be credit in the major department; the student must also complete work in a minor field or fields: a minimum of 20 hours in a single minor or a minimum total of 30 hours in two minors.

(c) Two term hours of credit in an advanced statistics course, dealing with the design of experiments and the analysis and interpretation of experimental data, are required.

(d) Special permission of the Graduate Council is required for a work load in excess of 18 hours per term.

No courses in the third and fourth years of the medical curriculum may be taken for graduate credit without special permission of the Graduate Council. Courses available for graduate credit are listed under the headings of each of the basic science departments in this catalog.

(4) Thesis Requirements. The candidate for an advanced degree must present a written description of experimental investigations carried out during the course of graduate study. Ordinarily, the thesis for the degree of Master of Science is a report of experimental work conducted by the student under the close supervision of his major professor. The thesis for the degree of Doctor of Philosophy must show evidence of originality on the part of the student in the planning and execution of independent experimental work, and the results must represent a definite contribution to knowledge. General instructions on the preparation of the thesis may be obtained from the chairman of the Graduate Council. The thesis must be accepted by the chairman of the Graduate Council on or before the first of May.

(5) Oral Thesis Examinations. An oral examination covering the subject of the thesis is required of all candidates for advanced degrees. The examining committee is appointed by the chairman of the Graduate Council with the advice of the chairman of the major department. The examination must take place at least ten days prior to the date of commencement.

## Combined Program Leading to the M.D. and a Graduate Degree

The Medical School offers a special five-year program of study for students wishing to work toward the Master of Science degree while completing the regular curriculum in medicine. The combined program of graduate-medical study is open only to students who plan to spend five years in residence at the Medical School. Required graduate major credit is earned in a major department of graduate study. Minor credits are granted for basic science courses in the medical curriculum. Medical students wishing to enter this program must be accepted as graduate students by the Graduate Council and the dean.

Candidates for the Doctor of Philosophy degree who have already earned the Doctor of Medicine degree may apply a maximum of 45 term hours of credit (one academic year) in the basic medical sciences toward the advanced degree. Duplicate enrollment as a medical student working toward the degree of Doctor of Medicine and as a graduate student working toward the degree of Doctor of Philosophy is not allowed.

### Registration and Payment of Fees

Registration for graduate study in any graduate program must be renewed quarterly and study programs arranged at the beginning of each term. Dates for registration and payment of fees conform to the dates indicated in the calendar of the Medical School. (See page 8.) The student is responsible for the arrangement of his course schedule by agreement with the chairman of his major department and the instructors teaching the desired courses.

Fees for graduate study are payable at the beginning of each term according to the schedule listed on page 64.

## Internship and Residency Programs

THE INTERNSHIP PROGRAM of the University of Oregon Medical School Hospitals and Clinics is approved by the Council on Medical Education and Hospitals of the American Medical Association. The hospitals participate in the National Internship Matching Program. The interns who receive training in the Medical School Hospitals and Clinics (currently 30) have a twelve-month rotating internship in both the Medical School Hospital and Multnomah Hospital. All patients in the hospitals and clinics are house cases and are under the personal care of an intern, who is responsible to the resident on the service. Internship appointments are effective July 1.

One of the important functions of a medical school is the training of physicians in the medical specialties. The demand for such training has greatly increased in recent years. In response, the Medical School residency program has been expanded to provide approximately 140 appointments. Residency training follows one year of internship and consists of two to five years of study devoted entirely to one specialized field of medicine. Instruction is given both in clinical departments and in related basic science departments of the school.

All residencies have received the approval of the Council on Medical Education and Hospitals of the American Medical Association and of the respective American boards. Residencies are offered in anesthesiology, dermatology, hematology, internal medicine, neurological surgery, neurology, obstetrics and gynecology, ophthalmology, orthopedic surgery, otolaryngology, pathology (both clinical and anatomical), pediatrics, psychiatry, radiology, general surgery, thoracic surgery, and urology.

The following Portland hospitals cooperate with the Medical School in the residency programs: Emanuel Hospital, Shriner's Hospital for Crippled Children, and Veterans Hospital.

Applications should be made to the medical director of the University of Oregon Medical School Hospitals and Clinics. Appointments are made six to eight months in advance of the beginning of the residency period, July 15.

## Postgraduate Program

THE MEDICAL SCHOOL makes its teaching and clinical facilities available to physicians for continued postgraduate study. An extensive postgraduate program has been arranged, consisting of a series of short intensive courses, usually of three to five days' duration. These courses are devoted to special subjects and are scheduled throughout the year. Instruction is by lectures and demonstrations, the method of presentation depending upon the subject.

Enrollment is open to any graduate of an approved medical school who is licensed to practice in his state of residence. The fee for each course is \$15.00 per day.

Any physician meeting the eligibility requirements stated above may attend any of the regularly scheduled clinical teaching activities in the hospitals and clinics without official enrollment and without payment of fees.

## School of Nursing

THE UNIVERSITY OF OREGON SCHOOL OF NURSING, located on the campus of the University of Oregon Medical School, Portland, offers three programs:

(1) The Basic Degree Program, leading to the Bachelor of Science in Nursing degree, prepares professional nurses who give total patient care in hospitals. public health agencies, and in the community, who assume leadership of other nursing personnel, and who possess the foundations for advanced study in teaching supervision, administration, and consultation. This program is four academic years and one summer term in length.

For the freshman year the student enrolls in an accredited college or university for work in liberal arts and basic sciences.

For the sophomore year, the student nurse transfers to the School of Nursing, Portland, where she continues her liberal arts studies along with professional nursing courses. Student nurses receive their clinical experience in the teaching hospitals and clinics of the Medical School-the Medical School Hospital. Multhomah Hospital, and the Outpatient Clinic. Psychiatric and public health nursing experience is secured in off-campus facilities—in the Oregon State Hospital. Salem, and in selected health departments and agencies.

(2) The Baccalaureate Degree Program for Registered Nurses is planned for graduates of diploma-school programs who are seeking a broad background of general and professional educational preparation to extend their professional practice. Public health nursing is an integral part of the program. The curriculum also provides opportunities for a broadened foundation in general education, liberal arts, and behavioral sciences.

(3) The Master's Degree Program, leading to a degree of Master of Science in Nursing, provides advanced professional preparation for the qualified graduate nurse who holds a bachelor's degree from an accredited college or university. A major in teaching is offered.

A catalog containing detailed information about the programs of the School of Nursing may be obtained by writing to the Director, University of Oregon School of Nursing, Portland 1.

## Hospital Dietetics

THE COURSE IN HOSPITAL DIETETICS offered in the University of Oregon Medical School Hospitals and Clinics was approved by the American Dietetic Association in 1943. The course provides the one year's internship in a hospital necessary to complete requirements for membership in the association.

The minimum admission requirement is graduation with a B.S. degree, including the academic requirements of the American Dietetic Association.

During the twelve-month training period at the Medical School, the student pays no tuition but provides her own supplies, including uniforms. Students receive complete maintenance and an allowance of \$75 per month.

Appointments are made once a year; applications should be submitted to the Director of Dietetics, University of Oregon Medical School Hospitals and Clinics, not later than March 1.

## RADIOLOGIC TECHNOLOGY

# Radiologic Technology

THE DEPARTMENT OF RADIOLOGY of the University of Oregon Medical School offers a two-year course of training for X-ray technicians. The course, which was established in 1930, is approved by the Council on Medical Education and Hospitals of the American Medical Association and by the American Registry of X-Ray Technicians.

The minimum admission requirement is graduation from an accredited high school with a high scholastic rating; however, preference is given to applicants who have college training with credits in mathematics and physics.

No tuition is charged during the period of training; however, the student must provide his own books, supplies, uniforms, and incidental fees. During the second year, the student serves as an apprentice technician and receives a stipend of \$50.00 per month.

The course includes lectures in anatomy, physiology, physics, and X-ray equipment, and lectures and clinical experience in dark-room chemistry and procedures, X-ray techniques, positioning of patients, hospital ethics, record keeping, department operation, and X-ray therapy. Students receive clinical experience in special X-ray procedures during their second year of training. All instruction is under the direction of the chairman of the Department of Radiology of the University of Oregon Medical School.

Twelve students are admitted annually in July. Applications should be submitted to the Director of the course in Radiologic Technology, Department of Radiology, University of Oregon Medical School Hospitals and Clinics.

The two-year program qualifies the student to take the registry examination of the American Registry of X-Ray Technicians, offered twice each year. The program includes the year of apprenticeship otherwise required by the Registry.

## Medical Technology

TYRA T. HUTCHENS, Director of Medical Technology Program Professor TYRA T. HUTCHENS Associate Clinical Professors JAMES H. LIUM HOMER H. HARRIS Assistant Professors GERALD J. LATTIG MARTHA L. HAMILTON JAMES L. BRAMHALL Assistant Clinical Professors EUGENE W. LANDRETH MARLOWE DITTEBRANDT Instructor MARY E. BAPTIST Clinical Instructors DAVID S. TAKALO

NIGEL A. PICKERING

TRAINING IN MEDICAL TECHNOLOGY is offered in the clinical laboratories of the University of Oregon Medical School. The twelve-month program, established in 1933, is approved by the Registry of Medical Technologists of the American Society of Clinical Pathologists and by the Council on Medical Education and Hospitals of the American Medical Association.

The minimum admissions requirement is three years of college work, including : 24 term hours of biology which are acceptable toward a major in biological science, including one full year of general biology and/or zoology with lecture and laboratory; 24 term hours of chemistry, including lecture and labora-

#### SPECIAL PROGRAMS

tory courses acceptable toward a major in chemistry (survey courses are not acceptable); and 4 term hours of mathematics. It is strongly recommended that a course in physics be included in the student's college preparation. The three years of college preparation may be obtained at any accredited college; the applicant's credentials must be approved by the Registry prior to admission.

Classes begin with the fall term and academic credit is granted for the work of the fall, winter, and spring terms. No credit is given for the summer term, which is required for certification by the Registry. Upon satisfactory completion of the twelve continuous months' training period, a certificate is issued to the student by the University of Oregon Medical School. The student is then eligible to take the National Registry Examination, which is given twice a year. Upon passing the examination, the student is qualified as a registered medical technologist with the American Society of Clinical Pathologists.

Credits earned in the medical technology program may be applied toward a bachelor's degree. The student who intends to apply for a bachelor's degree must complete the work required for the degree in the Oregon State System of Higher Education, or in the institution at which he obtained his college preparation, before entering upon the fourth year in medical technology at the University of Oregon Medical School.\*

A graduate program leading to the Master of Science degree is offered for qualified students.

Application blanks for admission may be obtained from the Registrar of the Medical School.

Fees. Students in the medical technology program pay the following fees:

Po	er term	Per year
Tuition		\$120.00
Laboratory and course fee	36.00	108.00
Building fee	12.00	36.00
Ineidental fee (student health service)	26.00	78.00
Total for Oregon residents\$		\$342.00
Total for nonresidents who pay an additional \$90.00 per term\$	204.00	\$612.00

Medical technology students pay the "special fees" listed on pages 64-65 under the conditions indicated.

Textbooks and uniforms are supplied by the student. No dormitories are available on the Medical School campus.

#### Curriculum in Medical Technology

#### Fall Term

Te	rm hours
MT 410. Clinical Bacteriology	4
MT 413. Laboratory Orientation	2
MT 424. Clinical Biochemistry	5
MT 430. Principles of Hematology	
†CP 520. Radioisotope Technique	
	17

#### Winter Term

MT 411. Clinical Bacteriology	6
MT 425. Chinical Biochemistry	6
MT 431. Special Hematology	3
†CP 521. Radioisotope Technique	1
	<u> </u>

\* Students expecting to receive the bachelor's degree from the University of Oregon should include 9 hours of English composition and 9 hours of English literature in their preparatory programs.

† See page 74.

## MEDICAL TECHNOLOGY

#### Spring Term

N#T 414	Urinalysis		
WII 414.		- 4	
MT 420.	Histological Technique	5	
		~	
MII 400.	Applied Deteroly	- 5	
MT 437.	Clinical Parasitology	1	
*CD 522	Radioisotope Laboratory		
CI 544	Additional and a second s		
		17	

## Description of Courses

- MT 410, 411. Clinical Bacteriology. 4 hours fall, 6 hours winter.
  - The bacteria pathogenic for man. Study of the culture, the morphological characteristics, and the means of isolation and identification of these organisms. Fall: lectures, 4 hours a week. Winter: lectures, 3 hours a week; laboratory, 9 hours a week. 176 hours.
- MT 413. Laboratory Orientation. 2 hours fall.

A study of the collection, preservation, and care of the various types of clinical specimens. Lectures, 1 hour a week; laboratory, 3 hours a week; 44 hours.

MT 414. Urinalysis. 4 hours spring.

A study of the mechanisms of formation and identification of the normal and abnormal components of urine. Lectures, 2 hours a week; laboratory, 6 hours a week; 88 hours.

MT 420. Histological Technique. 4 hours spring.

Principles of tissue fixation, dehydration, and staining, with special emphasis upon the methods used in histopathological technique. Lectures, 2 hours a week; laboratory, 6 hours a week; 88 hours.

MT 424, 425. Clinical Biochemistry. 5 hours fall, 6 hours winter.

The principles of biochemistry and the applications of colorimetry; gastrometric analysis, and quantitative chemistry in the determination of the substances in blood and body fluids. Fall: lectures, 3 hours a week; laboratory, 6 hours a week. Winter: lectures, 3 hours a week; laboratory, 9 hours a week. 231 hours.

## MT 430. Principles of Hematology. 5 hours fall.

The normal function and development of blood cells, red blood counts, white blood counts, differential cell counts, platelet counts, sedimentation rate, coagulation, bleeding time, and red blood cell fragility. Lectures, 3 hours a week; laboratory, 6 hours a week; 99 hours.

MT 431. Special Hematology. 3 hours winter.

Blood dyscrasias, bone marrow, and blood studies relative to the anemias, leukemia, and other pathological conditions of the blood. Lectures, 2 hours a week; laboratory, 3 hours a week; 55 hours.

## MT 436. Applied Serology. 5 hours spring.

The principles of serological phenomena in the laboratory. The factors influencing precipitin, flocculation, and complement fixation tests as applied to serum diagnosis of disease. Special consideration of flocculation and complement fixation tests as they apply to the diagnosis of syphilis. Lectures, 2 hours a week; laboratory, 9 hours a week; 121 hours.

MT 437. Clinical Parasitology. 3 hours spring.

The life cycles, modes of transmission, and diagnostic features of the more common parasites of man. Lectures, 2 hours a week; laboratory, 3 hours a week; 55 hours.

#### ELECTIVE COURSES

- MT 501. Research. Any term, hours to be arranged.
- MT 505. Reading and Conference. Any term, hours to be arranged.
- MT 507. Seminar. Any term, hours to be arranged.

16

# **Enrollment and Degrees**

## Degrees Conferred June 7, 1963

### Doctor of Medicine

GRADUATE	Internship
Joseph Graham Antony	
	Virginia Mason Hospital, Seattle, Wash.
Jerry Jerome Bass	
Duane Gary Beard	Fresno County General Hospital, Fresno, Calif.
William Shive Bechen	Charity Hospital of Louisiana, New Orleans, La.
James Albert Brooks	Receiving Hospital, Detroit, Mich.
Douglas A. S. Chalmers	Presbyterian Hospital, New York City, N.Y.
	Fresno County General Hospital, Fresno, Calif.
Wesley Allen Cook, Jr	
Michael J. DeBenedetti	
John Thad Flaxel	
James H. Gilbaugh, Jr	Ancker Hospital, St. Paul, Minn.
Richard C. Gilsdorf	USAF Hospital Wright-Patterson, Dayton, Ohio
George Allan Goodman	Sacramento County Hospital, Sacramento, Calif.
John Catlin Goss, Jr	Ancker Hospital, St. Paul, Minn.
Richard Titus Gourley	University of Oregon Medical School Hospitals and Clinics,
	Portland, Ore.
	Children's Hospital, San Francisco, Calif.
	Emanuel Hospital, Portland, Ore.
	Emanuel Hospital, Portland Ore.
	San Joaquin General Hospital, Stockton, Calif
	Kern County General Hospital, Bakersfield, Calif.
Hilbert John Henrickson	Travis USAF Hospital, Travis AFB, Calif.
	Walter Reed General Hospital, Washington, D.C.
Curtis Ray Holzgang,	University of Oregon Medical School Hospitals and Clinics, Portland, Ore.
Walter William Hutchison	
John G. Iwakiri	
Jay Taylor Johnson	Ireland Army Hospital, Fort Knox, Ky.
George Westley Keillor	
	Los Angeles County Hospital, Los Angeles, Calif.
	Baylor University Medical Center, Dallas, Tex.
	Bernalillo County-Indian Hospital, Albuquerque, N.M.
James Wyatt Mortensen	Providence Hospital, Portland, Ore.
William Bernard Ness	
	Receiving Hospital, Detroit, Mich.
	General Hospital of Riverside, Riverside, Calif.
	U. S. Naval Hospital, San Diego, Calif.
	Queens Hospital, Honolulu, Hawaii
этерпен D, Shoikon	

## ENROLLMENT AND DEGREES

## Doctor of Philosophy

John Peter Bentley Paul Telford Russell

## Master of Science

Wesley Allen Cook, Jr. John Thad Flaxel James Herbert Gilbaugh, Jr. Curtis Ray Holzgang

John H. Affleck

Dean B. Barnhouse

Anthony C. Billings

Daniel F. Brown

James W. Budke

William I. Calhoun

Michael S. N. Chun

Larry R. Eidemiller

Richard A. Ellerby

Robert W. Emmens Gerald I. Erickson

John N. Fax, Jr. Douglas P. Fisk James H. Fontaine

Donald W. Froom

John E. Gambee

Dennis C. Gould

Garron R. Hale

Roy E. Hall

David A. Haaland

Ierald E. Albrich

Peter W. Bergreen

Margaret G. Bischel

William Y. Burton, Jr.

John G. Apostol

C. Carter Boggs

James W. Burns

Margaret E. Elfering

Furm M. Duncan

Merle F. Bruce

Edward J. Barrett Nancy C. Bayles

Susan Victoria Hunter Robert Ervin Kramer Arthur Eugene Lewis Charles Francis McMahon Leo Joe McMahon

#### Derek Myhill William Glenn Prescott Myron Ekaku Shirasu Naomi John Vettath

109

## Enrollment 1962-63

## Medical Students

#### First-Year Class

Mark T. Hattenhauer Edward W. Hearn Ralph W. Higer Allan J. Hill III Larry W. Hirons Sharon M. Horn Robert H. Bridenbaugh Robert B. Hubbard Errett E. Hummel William C. Johnson Clyde B. Kernek Kenneth S. Keyes Allen P. Kibbey David Y. Kimura Robert S. Kinoshita Richard G. Lemery Arla Sue Lim Carole V. Maxwell Kenneth M. May Terrance J. McDowell Colan M. McKinnon, Jr. Dayton S. Misfeldt Calvin Y. Nakao John R. Obye Thomas W. Friedland David C. Oehling Neil J. O'Keefe Gerald W. Olmsted Michael G. O'Mara

#### Second-Year Class

Travis R. Cavens Jack F. Chan Robert G. Chuinard Gorden L. Clark Beverley A. Cleland Jerry C. Crooks Donald A. Duncan

Raymond L. Penniman Charles W. Poindexter William W. Pollard David J. Quenelle Natale D. Quilici Michael J. Reid David L. Robinson David R. Rosencrantz Harvey A. Rosenstock Robert H. Rozendal Dean R. Smart Ilmar Soot William M. Stanley I. Scott Starlin Frederick L. Surbaugh Stephen C. Swan Grace M. Takesue Joan K. Tanner Frank E. Thomas Ronald M. Tolls John E. Tysell, Jr. David W. Waldram Jeffrey S. Ward James E. Weiss David W. Wilder John W. Wilson

Jack H. Eberhart

Jerry J. Fisher Edward G. Foxley, Jr. R. Eugene Giesbrecht Lester S. Goldstein Jerry Goldstone John B. Hardiman

## MEDICAL SCHOOL

Keith R. Hooker W. Breck Howard Stanley J. Huber Theodore L. Imel Robert D. Jackman Stephen M. Jackson W. David Jones J. Michael Keane Russell J. Keizer Robert K. Kojda E. Louise Kremkau Robert W. Kubick Jerry G. Lear Richard K. Lear Terry W. Lowry Gerrit R. Ludwig Kenneth R. Maier William H. Massey Michael I. Michalek Richard R. Miller Donald A. Molde

John E. Abbott Robert L. Acker Ernest P. Aebi Irshad A. Ahmad John N. Anderson Donald F. Austin John O. Bergstrom Elrov D. Brandt Larry T. Brice Robert O. Burgess H. Treat Cafferata Timothy J. Campbell James J. Cereghino Charles K. Chapman Maurice J. Comcau John S. Corson William W. Cox Eric W. S. Craig S. Hope Davidson Robert D. Davis Curwood L. Davison Carl M. Deming David L. Dixon Peter J. Dowsett Eddie J. Droge Robert A. Eastwood John Echevarria

Joseph G. Antony Hollis L. Augee Jerry J. Bass Duane G. Beard William S. Bechen James B. Borden James A. Brooks Douglas A. S. Chalmers Robert W. Clark Thomas R. Conklin Wesley A. Cook, Jr. Michael J. DeBenedetti John T. Flaxel James H. Gilbaugh, Jr. Richard C. Gilsdorf George A. Goodman J. Catlin Goss, Jr. Richard T. Gourley Larry J. Hall

Michael E. Nishitani Phyllis M. Nybakke Edward T. Paget Lee H. Peterson H. Irving Pierce James D. Pitts Anselmo Pizzuti Michael T. Propst James S. Pucelik Robert E. Quass Kermit V. Ragain Steven F. Reeder Dean C. Rich John P. Ritchey Francis A. Roberts Gary B. Rothenberger Robert C. Seeger John L. Sevilla R. Michael Sherwin Jack B. Shininger James J. Simerville

#### Third-Year Class

Harold Erickson James D. Fearl Thomas J. Franz Layne O. Gentry David N. Gilbert Eugene W. Goertzen Scott H. Goodnight, Jr. James L. Griggs Edward A. Grossenbacher Rodger G. Hawkins H. Hale Henson Meredith K. Hester John C. Hill Thomas C. Honl Chin S. Hoo John C. Hylen Robert C. Koch Marshall L. Koonce Kevin B. Lake William R. Lee Willard R. Lilly Ralph V. Litchfield George M. Maskell Martin E. McKenney Donald L. Meyer Donald S. Minckler Gary L. Neal Daniel W. Nebert

#### Fourth-Year Class

Samuel J. Hammond Edward L. Hargis Artyce Lee Hawman James D. Hearn George R. Hegstrom, Jr. Richard W. Hehn Gene W. Heinrichs Hilbert J. Henrickson Gerald R. Herrin Curtis R. Holzgang Walter W. Hutchison John G. Iwakiri Jay T. Johnson George W. Keillor Donald T. Kerr Alvin M. Klass Robert E. Kramer Ben R. Kuhner Russell K. Lawson

Davis S. Smith Stanley N. Smith Peter Stenzel Richard W. Stevens Donald K. Stott Michael B. Strauss Gordon W. Summers E. George Thorne Gerald E. Trobough James L. Uhrhammer Visutdhi Upatisringa Thomas D. Utterback George E. Waldmann John L. Wallin Dean T. Watkins David D. Weaver John D. Webber Ivyl W. Wells Novell M. Wells John M. Whitelaw, Jr.

Larry E. Noble James E. O'Dea Thomas E. Olsen David G. Paff C. Milton Quam John B. Quick, Jr. K. Ann Ragle Delbert L. Remy George H. Rice David W. Rich Donald F. Richey J. Stephen Schaub Donald H. See Larry J. Severson George Shimomura Edward H. Stark Gary M. Stewart William C. Stone Per H. Tonning Robert O. Voy Donald E. Wadsworth N. Dean Weaver Jacob H. Wilson Albert Winkler, Jr. Laurence J. Wiwatowski John L. Wobig Paul D. Young

Arthur E. Lewis Gerald T. Lisac Kenneth K. Magee Charles L. Martinson Charles F. McMahon Leo J. McMahon James W. Mortensen William B. Ness Walter E. Norton Donald R. Olson Larry M. Ottis William G. Prescott David D. Reeder Esther H. Robinson Banchert Saetan C. Dudley Saul Richard S. Scott Jon A. Shaw Myron E. Shirasu

#### ENROLLMENT AND DEGREES

Gerold van der Vlugt

Thomas A. Van Veen

Theodore A. Walters

Raul A. Vernal

Fredrick D. Wade

Stephen D. Sholkoff Kenneth M. Stevens Calvin T. Tanabe James R. Ten Evck Richard P. Tesoro David S. Todd

Marlene I. Abplanalp J. Peter Bentley Rose Mary Bocek Arthur D. Bond Jean Hills Boyes Robert E. Brooks Robert E. Brummett Stuart L. Bunch Hugh E. Casey, Jr. Janey M. Y. Cheu Richard A. Cheu

John F. Bellinger

Steven E. Berglund

Buckner S. Burch

Alan B. Chambers

Mary Helen Wilder Graduate Students Reid S. Connell Howard W. Davis

David Gaudin William L. Heinrichs Susan V. Hunter Ralph J. Kalinowski Al H. Kuykendall Paul E. McMahill Neil I. Moir Carolyn J. Moll Derek Myhill

Laurence H. Winter, Jr. John W. Wood Richard C. Wright

Stuart D. Wilson

William S. Wilson

Walter Petersen, Jr. Mohammed Rafiullah Tames deWitt Rankin Paul T. Russell Linda L. Shockey Leonard T. Sigell Constance Simo Alan H. Tench Naomi Vettath Vernon W. Walters

#### Specials and Auditors

William P. Cosart Murray H. Bartley, Jr. David H. Maas James D. Day Louis Henry Peters Jack L. Hartley Richard S. Pope Doris Highet Alvin V. Schiess James W. Little Bente L. Simonsen

#### Medical Technology Students

- \*Isaac Edward Allen Duane Richard Armstrong Roberta Ellen Aufderheide Marilyn J. Blakely Yvonne Elda Buhmann \*Earl Dean Burtch Sharon Louise Carr Marvin David Gause \*Connve Louise Idstrom
- Marilyn Yvonne Indrakamhaeng Margaret Jane Johnson Leilani Rae Kehm Allan Ray Kimmey \*Robert Elijah Lewis Beverly Ann Wade North \*Dora Thea Norwood Margaret Ann Redding Edith Joan Rittenbach

Jean Evelyn Ruby Allen Clark Ryman Jean Marie Severin Roberta Ann Sleeter \*Gerald Eldon Snow Leora Jane Warner Sandra Rae Hess Webb \*Gary David Wicklund James Athey Wilkinson

\* Auditors

## Summary of Enrollment, 1962-63

	Men	Women	Total
First year	73	7	80
Second year	79	4	83
Third year		3	82
Fourth year	71	. 3	74
Total regular students	302	17	319
Graduate students	24	8	32
Special students and auditors	13	2	15
Medical technology students	10	17	27
Total	349	44	393

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