

UNIVERSITY OF OREGON MEDICAL SCHOOL

PORTLAND, OREGON

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1964-65

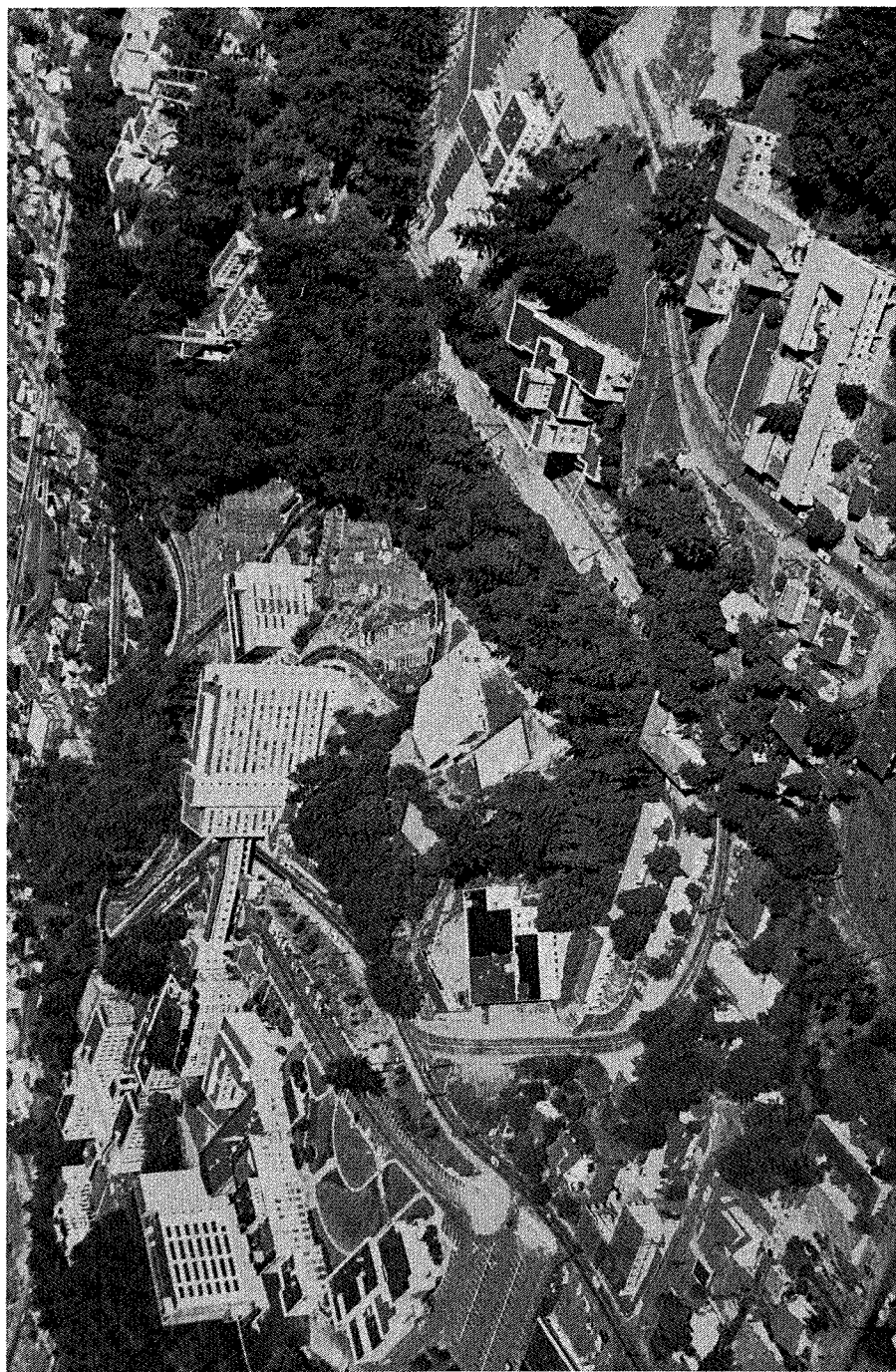


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AERIAL VIEW OF THE UNIVERSITY OF OREGON MEDICAL SCHOOL CAMPUS PORTLAND

UNIVERSITY
OF OREGON
MEDICAL
SCHOOL

1964-65 CATALOG

3181 S.W. Sam Jackson Park Road
PORTLAND, OREGON 97201

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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 on 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 Division of Continuing Education, 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. Southern Oregon College offers a major program in business.

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.

Oregon Technical Institute offers technological curricula leading to associate degrees in technical and semiprofessional areas.

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

State Board of Higher Education

	Term Expires
RALPH E. PURVINE, Salem.....	1965
RAY T. YASUI, Hood River.....	1965
JOHN MERRIFIELD, Portland.....	1966
CHARLES R. HOLLOWAY, JR., Portland.....	1967
ELIZABETH H. JOHNSON, Redmond.....	1968
J. W. FORRESTER, JR., Pendleton.....	1969
JOHN W. SNIDER, Medford.....	1969
PHILIP A. JOSS, Portland.....	1970
GEORGE LAYMAN, Newberg.....	1970

Officers

CHARLES R. HOLLOWAY, JR.....	President
J. W. FORRESTER, JR.....	Vice-President
RALPH E. PURVINE.....	Member, Executive Committee

ROY E. LIEUALLAN, Chancellor

RICHARD L. COLLINS, Secretary of Board

Office of 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

<p>ARTHUR S. FLEMMING, LL.D. President, University of Oregon</p> <p>DAVID W. E. BAIRD, M.D., LL.D. Dean, Medical School</p> <p>HAROLD J. NOYES, D.D.S., M.D. Dean, Dental School</p> <p>BRANFORD P. MILLAR, Ph.D. President, Portland State College</p>	<p>JAMES H. JENSEN, Ph.D. President, Oregon State University</p> <p>ELMO N. STEVENSON, Ed.D. President, Southern Oregon College</p> <p>AVERNO M. REMPEL, Ph.D. President, Eastern Oregon College</p> <p>LEONARD W. RICE, Ph.D. President, Oregon College of Education</p>
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WINSTON D. PURVINE, A.B., LL.D.
Director, Oregon Technical Institute

HERBERT A. BORK, M.S., C.P.A..... Vice-Chancellor for Business Affairs

RICHARD L. COLLINS, M.A., C.P.A..... Secretary of the Board;
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MILES C. ROMNEY, Ph.D..... Vice-Chancellor for Academic Affairs

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Education

DONALD R. LARSON, B.A..... Assistant Chancellor for Public Affairs

WILLIAM M. CARLSON, M.A..... Director of Libraries

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., LL.D.....	1946-1950
CHARLES D. BYRNE, Ed.D.....	1950-1955
JOHN R. RICHARDS, Ph.D.....	1955-1961

University of Oregon Medical School

Calendar, 1964-65

Medical and Graduate Students

Fall Term, 1964-65

September 14, *Monday*.....Registration
September 15, *Tuesday*.....Instruction begins
September 28, *Monday*.....Last day to register for full credit
or to change courses
November 26, *Thursday*.....Thanksgiving Day, holiday
December 5, *Saturday*.....Fall term ends

Winter Term, 1964-65

December 7, *Monday*.....Instruction begins
December 18, *Friday*.....Last day to register for full credit
or to change courses
December 20, 1964, through January 3, 1965.....Christmas vacation
March 13, *Saturday*.....Winter term ends

Spring Term, 1964-65

March 22, *Monday*.....Instruction begins
April 5, *Monday*.....Last day to register for full credit
or to change courses
May 31, *Monday*.....Memorial Day, holiday
June 11, *Friday*.....Commencement
June 12, *Saturday*.....Spring term ends

Summer Term, 1965

June 14, *Monday*.....Registration; instruction begins
June 28, *Monday*.....Last day to register for full credit
or to change courses
July 5, *Monday*.....Independence Day, holiday
September 4, *Saturday*.....Summer term ends

Fall Term, 1965-66

September 13, *Monday*.....Registration; instruction begins

University of Oregon Medical School

Calendar, 1964-65

Medical Technology Students

Fall Term, 1964-65

September 7 through September 12.....Laboratory orientation
September 14, *Monday*.....Registration; instruction begins
November 26, *Thursday*.....Thanksgiving Day, holiday
November 28, *Saturday*.....Fall term ends

Winter Term, 1964-65

November 30, *Monday*.....Registration; instruction begins
December 20, 1964, through January 3, 1965.....Christmas vacation;
laboratory instruction continues
February 27, *Saturday*.....Winter term ends

Spring Term, 1964-65

March 8, *Monday*.....Registration; instruction begins
May 22, *Saturday*.....Spring term ends

Fall Term, 1965-66

September 6 through September 11.....Laboratory Orientation
September 13, *Monday*.....Registration; instruction begins

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.

GENERAL INFORMATION

The University of Oregon Medical School is located in Portland (population 377,957), 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 beginning 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.

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 200,000 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. This facility is now closed and the patients have been transferred to the *Oregon State Tuberculosis Hospital*, Salem, as a result of action by the 1963 Oregon State Legislature. Administration of the *Oregon State Tuberculosis Hospital* was transferred to the State Board of Higher Education under the 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.

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 100,000 volumes of books and bound and unbound periodicals. Approximately 1,800 current periodicals are received. Through the privileges of interlibrary loan and microfilm service, it is possible to obtain within a few days materials not contained in this collection. The Library has a copying machine for the duplication of material in the Library collection.

The Library has been enriched through many valuable gifts of books and periodicals from individuals and organizations. Members of the Women's Auxiliary

- BLAIR HOLCOMB, M.D., Professor Emeritus of Medicine.
M.D. (1919), Rush (University of Chicago).
- NOBLE WILEY JONES, M.D., Professor Emeritus of Medicine.
A.B. (1895), Stanford; M.D. (1901), Rush (University of Chicago).
- LYLE B. KINGERY, M.D., Professor Emeritus of Medicine.
B.S. (1912), M.D. (1916), Michigan.
- WILLIAM K. LIVINGSTON, M.D., Professor Emeritus of Surgery.
B.A. (1913), M.D. (1917), Oregon; M.D. (1920), Harvard.
- MERL L. MARGASON, M.D., Professor Emeritus of Medicine.
A.B. (1920), M.D. (1923), Oregon.
- FRANK R. MENNE, M.D., Professor Emeritus of Pathology.
B.S. (1913), Wisconsin; M.D. (1915), Rush (University of Chicago).
- MERLE W. MOORE, M.D., Associate Professor Emeritus of Medicine.
B.S. (1920), Oregon; M.D. (1924), Jefferson.
- MATTHEW C. RIDDLE, M.D., Associate Professor Emeritus of Medicine.
B.A. (1917), Reed; M.A. (1922), Oregon; M.D. (1926), Harvard.
- EUGENE W. ROCKEY, M.D., Professor Emeritus of Surgery.
B.A. (1908), Stanford; M.D. (1912), Harvard.
- HOMER P. RUSH, M.D., Professor Emeritus of Medicine.
M.A., M.D. (1921), Oregon.
- LAURENCE SELLING, M.D., Professor Emeritus of Medicine.
B.A. (1904), Yale; M.D. (1908), Johns Hopkins.

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).
R.S. (1922), University of Washington; M.D. (1926), Oregon.
- JOSEPH J. ADAMS, B.B.A., Assistant Dean for Institutional Relations; 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 Clinical Pathology (Radioisotopes) and Radiology; Head of Division of Radiotherapy (1955).
M.D. (1933), Iowa.
- 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.
- †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.
- GEORGE M. AUSTIN, M.D., Professor of Neurosurgery; Head of Division (1957).
A.B. (1938), Lafayette; M.D. (1942), Pennsylvania.

* The year in parentheses following the name of each faculty member indicates the date of original appointment to the faculty.

† Volunteer.

- 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; Head of Division of Rheumatology (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.
- † DANIEL M. BAER, M.D., Clinical Instructor in Clinical Pathology (1964).
A.B. (1953), Oberlin; M.D. (1957), New York Medical College.
- † 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., LL.D., Dean of the Medical School; Professor of Medicine (1928).
M.D. (1926), Oregon; LL.D. (1946), University of Portland.
- 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.
- † PETER J. BATTEN, M.D., Clinical Instructor in Public Health and Preventive Medicine (1963).
B.S. (1948), College of St. Thomas; M.S. (1950), Wayne State; M.D. (1956), Michigan; M.P.H. (1962), California.
- † SAMUEL T. BEALL, M.D., Clinical Associate 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 Associate in Urology (1954).
B.A. (1945), M.D. (1947), Oregon.
- † CLARISSA H. BEATTY, Ph.D., Associate Professor of Biochemistry (Primate Center) (1953).
B.A. (1941), Sarah Lawrence; M.S. (1942), Ph.D. (1945), Columbia.
- † WILLIAM S. BECK, M.D., Clinical Associate 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.

† Volunteer.

‡ Part-time.

- †RODERICK E. BEGG, M.D., Assistant Clinical Professor of Orthopedic Surgery (1939).
B.S. (1924), Oregon State; M.D. (1937), 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), Wesleyan; M.D. (1946), Harvard.
- RALPH C. BENSON, M.D., Professor of Obstetrics and Gynecology; Chairman of Department (1956).
B.A. (1932), Lehigh; M.D. (1936), Johns Hopkins.
- †FREDERIC H. BENTLEY, M.D., Clinical Instructor in Surgery (1953).
B.Sc. (1926), M.B., Ch.B. (1929), M.D. (1946), Manchester (England); F.R.C.S. (1932), Royal College of Surgeons.
- J. PETER BENTLEY, Ph.D., Instructor in Experimental Biology (1964).
B.Sc. (1952), Royal College of Technology, England; M.S. (1961), Ph.D. (1963), Oregon.
- †JOHN H. BENWARD, M.D., Assistant Clinical Professor of Pediatrics (1943).
B.S. (1937), M.D. (1939), Oklahoma.
- †ARTHUR W. BERG, M.D., Assistant Clinical Professor of 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.
- †ARTHUR M. BERGMAN, M.D., Clinical Associate in Medicine (1948).
B.A. (1940), M.D. (1943), New York University.
- †JOHN R. BERRY, M.D., Clinical Instructor in Pediatrics (1963).
B.A. (1954), M.D. (1957), Stanford.
- †SIEGFRIED R. BERTHELSDOFF, 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 KEPLER BILBAO, M.D., Assistant Professor of Radiology (1961).
B.S. (1952), Minnesota; M.D. (1957), Columbia.
- †JOSEPH 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.
- 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.

† Volunteer.

|| On leave of absence Dec. 1, 1964 to Apr. 1, 1965; studying normal and abnormal palatopharyngeal function.

- †RODERICK C. BLATCHFORD, M.D., Assistant Clinical Professor of Obstetrics and Gynecology (1938).
A.B. (1927), Willamette; M.D. (1933), Oregon.
- †ROSE MARY BOCEK, Ph.D., Assistant Professor of Biochemistry (Primate Center) (1957).
B.S. (1946), Marylhurst; M.S. (1954), Ph.D. (1964), 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.
- ROBERT D. BOYD, Ph.D., Associate Professor of Medical Psychology (1964).
B.A. (1938), Linfield; M.A. (1941), Southern California; M.A. (1947), Ph.D. (1953), Michigan.
- †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 Associate in Orthopedic Surgery (1953).
B.A. (1944), M.D. (1946), Oregon.
- JEAN H. BOYES, B.S., Instructor in Cytotechnology, Pathology (1961).
B.S. (1948), Lewis and Clark.
- †GEORGE A. BOYLSTON, M.D., Assistant Clinical Professor of Medicine (1946).
B.S. (1936), M.S. (1937), M.D. (1939), Northwestern.
- †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.
- †ROBERT M. BRENNER, Ph.D., Associate Professor of Experimental Biology (Primate Center) (1964).
A.B. (1950), A.M. (1951), Ph.D. (1955), Boston.
- 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.G. (1916), Montana State University; M.D. (1924), Oregon.
- †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.
- JOHN M. BROOKHART, Ph.D., Professor of Physiology; Chairman of Department (1949).
B.S. (1935), M.S. (1936), Ph.D. (1939), Michigan.

- ROBERT E. BROOKS, B.S., Instructor in Pathology, Electron Microscopy (1961).
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B.A. (1952), M.D. (1956), Oregon.
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- SIDNEY BROWNSTONE, M.D., Instructor in Medicine (Tuberculosis Hospital) (1963).
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- BRUCE V. BUTLER, Ph.D., Assistant Professor of Medical Psychology (1960).
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- ||RICHARD B. BYRD, M.D., Clinical Instructor in Medicine (1961).
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- †NATHAN J. CAMPBELL, M.D., Clinical Instructor in Surgery (1950).
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- C. CONRAD CARTER, M.D., Assistant Professor of Neurology (1956).
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- †LEROY S. CASPERSEN, M.D., Clinical Instructor in Obstetrics and Gynecology (1960).
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- †GEORGE E. CHAMBERLAIN, M.D., Clinical Professor of Otolaryngology (1947).
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- JAMES J. CHANDLER, M.D., Instructor in Surgery (1964).
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- †ALLAN K. CHAPPELL, M.D., Clinical Instructor in Pediatrics (1964).
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- †CHARLES L. CHAVIGNY, M.D., Clinical Instructor in Obstetrics and Gynecology (1956).
B.S. (1933), B.E. (1934), Tulane; M.D. (1951), Louisiana State.
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- †ELDON G. CHUINARD, M.D., Associate Clinical Professor of Orthopedic Surgery (1938).
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- †C. LOUISE CLANCY, M.D., Clinical Instructor in Obstetrics and Gynecology (1944).
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- †TERENCE H. COCHRAN, M.D., Assistant Clinical Professor of Pathology (1960).
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- †CHARLES W. COFFEN, M.D., Assistant Clinical Professor of Medicine (1941).
B.S. (1932), Stanford; M.D. (1936), Johns Hopkins.
- †LAWRENCE J. COHEN, M.D., Clinical Instructor in Orthopedic Surgery (1950).
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- ANTONIO E. COLÁS, M.D., Ph.D., Associate Professor of Biochemistry and Obstetrics and Gynecology (1962).
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- †EMERSON J. COLLIER, M.D., Clinical Associate in Urology (1956).
B.S. (1941), Alaska; M.D. (1944), Oregon.
- †HUGH DONALD COLVER, M.D., Clinical Instructor in Surgery (1950).
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- ‡WILLIAM S. CONKLIN, M.D., Associate Clinical Professor of Cardiopulmonary Surgery (1943).
A.B. (1931), Dartmouth; M.D. (1934), Pennsylvania.
- ROBERT A. COOPER, JR., M.D., Assistant Professor of Pathology (1962).
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B.A. (1926), M.D. (1930), Oregon.
- ||GEORGE W. DANA, M.D., Associate Professor of Pediatrics (1951).
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A.B. (1925), M.D. (1931), California.
- †AUBREY M. DAVIS, M.D., Assistant Clinical Professor of Medicine (1934).
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- †JOHN P. DENNIS, M.D., Clinical Instructor in Neurosurgery (1959).
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- †ARCH W. DIACK, M.D., Clinical Associate in Surgery (1937).
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- †SAMUEL L. DIACK, M.D., Clinical Instructor in Medicine (1933).
M.D. (1930), Michigan.
- †H. LENOX H. DICK, M.D., Associate Clinical Professor of Pharmacology (1950).
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- †HERMAN A. DICKEL, M.D., Clinical Professor of Psychiatry (1942).
B.A. (1933), Montana State University; M.B. (1937), M.D. (1938), Northwestern.
- †JOHN P. DICKSON, D.M.D., Clinical Instructor in Dental and Oral Medicine (1961).
D.M.D. (1950), Oregon.
- †HENRY H. DIXON, M.D., Clinical Professor of Psychiatry (1932).
M.D. (1928), Washington University.
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B.S. (1952), M.D. (1955), Oregon.
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B.S. (1958), Brigham Young; M.A. (1960), Maryland.
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M.D. (1950), Boston University.
- RICHARD L. DOBSON, M.D., Professor of Dermatology (1961).
M.D. (1953), University of Chicago.
- WILSON C. DOCKERY, B.S., Student Activities Director; Assistant Professor (1960).
B.S. (1937), Oregon State.

- CHARLES T. DOTTER, M.D., Professor of Radiology; Chairman of Department (1952).
B.A. (1941), Duke; M.D. (1944), Cornell.
- †ROBERT S. DOW, M.D., Ph.D., Associate Clinical Professor of Neurology (1939).
B.S. (1929), Linfield; M.A., M.D. (1934), Ph.D. (1935), Oregon.
- HILDA E. DRUM, Assistant Professor of Radiologic Technology (1954).
- RAPHAEL B. DURFEE, M.D., Associate Professor of Obstetrics and Gynecology (1957).
B.A. (1939), M.D. (1944), Stanford.
- †CLYDE H. DU VALL, JR., M.D., Clinical Instructor in Ophthalmology (1960).
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B.A. (1941), Rochester; M.D. (1950), Syracuse.
- †ZANLY C. EDELSON, M.D., Clinical Instructor in Surgery (1948).
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- †J. COLEMAN EDWARDS, M.D., Clinical Instructor in Anesthesiology (1959).
B.S. (1946), M.D. (1949), Oregon.
- MILES J. EDWARDS, M.D., Assistant Professor of Medicine (1964).
B.A. (1951), Willamette; M.S., M.D. (1956), Oregon.
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B.A. (1950), Williams; M.D. (1954), Cornell.
- †LESTER H. EISENDORF, M.D., Clinical Instructor in Surgery (1950).
B.S. (1935), M.D. (1938), Illinois.
- †MORTON G. ELEFF, M.D., Clinical Instructor in Pediatrics (1962).
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- †OTTO R. EMIG, M.D., Assistant Clinical Professor of Pathology (1957).
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B.A. (1945), M.D. (1947), Oregon.
- RUDOLPH C. H. ENGEL, M.D., Associate Professor of Pediatrics (1952).
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- †WAYNE G. ERICKSEN, M.D., Assistant Clinical Professor of Radiology (1950).
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- ROBERT D. FITZGERALD, Ph.D., Assistant Professor of Medical Psychology (1962).
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- WILLIAM S. FLETCHER, M.D., Assistant Professor of Surgery (1960).
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†MARVIN C. GOLDMAN, M.D., Clinical Associate in Medicine (1958).

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- JARVIS GOULD, M.D., Associate Medical Director and Associate Administrator of Hospitals and Clinics; Associate Professor of Medicine (1948).
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- †FRANK M. JACOBSON, M.D., Clinical Instructor in Pediatrics (1962).
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- †SHELDON A. JACOBSON, M.D., Associate Clinical Professor of Pathology (1950).
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- †DAVID W. JAMES, M.D., Assistant Clinical Professor of Obstetrics and Gynecology (1949).
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- †JOHN PAUL JARABAK, D.D.S., Clinical Associate in Dental and Oral Medicine (1960).
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- †NARAINDAS B. JETMALANI, D.P.M., Assistant Clinical Professor of Psychiatry (1964).
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- †ROBERT B. JOHNSON, M.D., Clinical Instructor in Medicine (1954).
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- †RUSSELL L. JOHNSRUD, M.D., Assistant Clinical Professor of Surgery (1936).
B.A. (1930), M.D. (1933), Oregon.
- GEORGE I. JOHNSTON, B.S., Director of Research Instrument Service; Instructor (1961).
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- †ARTHUR C. JONES, M.D., Clinical Professor of Physical Medicine in Surgery (1929).
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- †LESTER T. JONES, M.D., Clinical Professor of Otolaryngology (1924).
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- †MAXWELL S. JONES, M.D., Clinical Professor of Psychiatry (1960).
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- †**RICHARD H. LINDQUIST, M.D.**, Clinical Instructor in Surgery (1958).
B.S. (1946), South Dakota; M.D. (1947), Louisville.
- LOUIS LINO, Ph.D.**, Assistant Professor of Neurology (1958).
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B.A. (1932), M.D. (1935), Oregon.
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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; M.Sc. (1945), Minnesota; M.A. (Hon.) (1957), Dartmouth.
- †**NORMAN D. LOGAN, M.D.**, Clinical Instructor in Orthopedic Surgery (1962).
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- †**JOHN WAYNE LOOMIS, M.D.**, Assistant Clinical Professor of Radiology (1951).
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- †**GEORGE P. LYMAN, M.D.**, Clinical Associate in Ophthalmology (1954).
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- RICHARD B. LYONS, M.D.**, Assistant Professor of Anatomy and Experimental Medicine (1961).
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- †**J. OPPIE MCCALL, JR., M.D.**, Assistant Clinical Professor of Obstetrics and Gynecology (1950).
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- ELTON L. MCCAWLEY, Ph.D.**, Professor of Pharmacology (1949).
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- †**GUY R. MCCUTCHAN, M.D.**, Clinical Associate in Medicine (1939).
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- †**LOUIS R. MCKAEL, M.D.**, Clinical Instructor in Pediatrics (1961).
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- †LAURENCE K. MACDANIELS, M.D., Assistant Clinical Professor of Medicine (1949).
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- †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. MAKES, M.D., Clinical Instructor in Medicine (1959).
B.S. (1950), University of Portland; M.D. (1953), Creighton.
- †MANUEL R. MALINOW, M.D., Associate Professor of Medicine (Primate Center) (1963).
B.S. (1938), Colegio Nacional de Buenos Aires; M.D. (1944), Buenos Aires Medical School.
- †ARTHUR MALLEY, Ph.D., Assistant Professor of Bacteriology (Primate Center) (1964).
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- †F. KEITH MARKEE, M.D., Assistant Clinical Professor of Obstetrics and Gynecology (1952).
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- †R. KENT MARKEE, M.D., Clinical Instructor in Surgery (1953).
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- †RICHARD E. MARKLEY, M.D., Clinical Associate in Ophthalmology (1953).
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- JOSEPH D. MATARAZZO, Ph.D., Professor of Medical Psychology; Chairman of Department (1957).
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- †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).
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- †GORDON L. MAURICE, M.D., Clinical Associate in Medicine (1949).
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- †JOSEPH C. MITCHELL, M.D., Clinical Instructor in Obstetrics and Gynecology (1958).
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- ‡WILLIAM MONTAGNA, Ph.D., D.Sc., Professor of Experimental Biology; Head of Division (Director, Oregon Regional Primate Center) (1963).
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- †THOMAS R. MONTGOMERY, M.D., Associate Clinical Professor of Urology (1939).
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- †DAVID W. MOORE, M.D., Clinical Instructor in Obstetrics and Gynecology (1953).
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- †RAYMOND E. MOORE, M.D., Clinical Instructor in Physical Medicine (1958).
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- ‡CARL V. MORRISON, M.D., Associate Clinical Professor of Psychiatry (1947).
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- †SEYMOUR R. MOSS, M.D., Clinical Instructor in Psychiatry (1962).
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- †JAN J. MULLER, D.D.S., Clinical Associate in Dental and Oral Medicine (1959).
H.B.S. (1935), Drafne Lyceum, Bussum, Holland; D.D.S. (1939), Minnesota.
- †JOHN J. MURPHY, M.D., Clinical Associate in Medicine (1948).
B.A. (1938), Carroll College; M.D. (1942), Michigan.
- ROBERTA S. MURRAY, Ph.D., Instructor in Speech Pathology, Pediatrics (1964).
B.A. (1955), Brigham Young; M.A. (1959), Ph.D. (1962), Stanford.
- ‡PAUL B. MYERS, M.D., Assistant Clinical Professor of Otolaryngology (1950).
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- ‡RUTH A. MYLLENBECK, M.S., Instructor in Bacteriology (1962).
B.A. (1949), Michigan; M.S. (1953), University of Washington.
- †JOSEPH W. NADAL, M.D., Assistant Clinical Professor of Surgery (1944).
A.B. (1932), Drury; M.D. (1937), Harvard; M.S. (1941), Michigan.
- †GEORGE A. NASH, M.D., Assistant Clinical Professor of Pediatrics (1954).
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- WILLIAM A. NEILL, M.D., Assistant Professor of Medicine (1963).
B.A. (1951), Amherst; M.D. (1955), Cornell.
- †DUNCAN R. NELSON, M.D., Associate Clinical Professor of Obstetrics and Gynecology (1946).
A.B. (1934), Pacific University; M.D. (1938), Oregon.
- †GUNNAR E. C. NELSON, M.D., Associate Clinical Professor of Obstetrics and Gynecology (1937).
Ph.G. (1923), B.S. (1925), Washington State; M.D. (1933), Oregon.
- †MARILYN A. NELSON, M.D., Clinical Instructor in Pediatrics (1963).
B.S. (1956), Lewis and Clark; M.D. (1959), Oregon.
- †HARRY NEWMAN, M.D., Clinical Instructor in Radiology (1959).
B.S. (1952), University of Portland; M.D. (1954), Oregon.
- †GREGORY B. NICHOLS, M.D., Clinical Instructor in Radiology (1950).
M.D. (1943), Creighton.
- †H. MINOR NICHOLS, M.D., Clinical Instructor in Surgery (1940).
Ph.B. (1930), Yale; M.D. (1934), Oregon; M.S. (1937), Pennsylvania.
- NICHOLAS NICOLAIDES, Ph.D., Associate Professor of Biochemistry and Dermatology (1960).
B.S. (1939), M.S. (1940), Case Institute of Technology; Ph.D. (1950), University of Chicago.
- KENNETH A. NIEHANS, Director of Public Affairs; Instructor (1963).
B.A. (1957), Oregon.
- NELSON R. NILES, M.D., Associate Professor of Pathology (1952).
M.D. (1947), Cornell.
- †OLIVER M. NISBET, M.D., Associate Clinical Professor of Surgery (1926).
B.S. (1915), Idaho; M.D. (1919), Rush (University of Chicago).
- †LAWRENCE NOALL, M.D., Associate Clinical Professor of Orthopedic Surgery (1941).
B.A. (1931), B.M. (1934), Utah; M.D. (1936), Northwestern.
- †JOSEPH E. NOHLGREN, M.D., Associate Clinical Professor of Pathology (1949).
B.S. (1935), South Dakota State; M.D. (1943), Oregon.
- ALBERT S. NORRIS, M.D., Associate Professor of Psychiatry (1964).
M.D. (1951), Western Ontario.
- †HAROLD J. NOYES, D.D.S., M.D., Clinical Professor of Dental and Oral Medicine; Head of Division (1946).
Ph.B. (1923), University of Chicago; B.S. (1928), D.D.S. (1928), Illinois; M.D. (1933), Rush (University of Chicago).
- ||EVELYN L. OGINSKY, Ph.D., Professor of Bacteriology (1957).
B.A. (1938), Cornell; M.S. (1939), University of Chicago; Ph.D. (1946), Maryland.
- †JOHN D. O'HOLLAREN, M.D., Clinical Associate in Medicine (1959).
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- RICHARD W. OLMSTED, M.D., Professor of Pediatrics; Chairman of Department (1962).
B.A. (1941), Dartmouth; M.D. (1944), Harvard.
- †DONALD E. OLSON, M.D., Assistant Clinical Professor of Medicine (1955).
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- †WILLIAM R. OLSON, M.D., Clinical Instructor in Medicine (1961).
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EDWIN E. OSGOOD, M.D., Professor of Medicine (1922).
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HAROLD T. OSTERUD, M.D., Associate Professor of Public Health and Preventive Medicine (1961).
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†OTTO C. PAGE, M.D., Assistant Clinical Professor of Medicine (1952).
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B.S. (1938), Stanford; M.D. (1944), Washington University.

†JOSEPH F. PAQUET, M.D., Clinical Associate in Medicine (1944).
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M. RONALD PARELIUS, M.Sc., LL.B., Director of Research Services; Instructor (1962).
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†MAX H. PARROTT, M.D., Assistant Clinical Professor of Obstetrics and Gynecology (1949).
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†JOHN W. PARTRIDGE, M.D., Clinical Associate in Medicine (1957).
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† ANNE M. PERLEY, M.A., Assistant Professor of Biochemistry (Primate Center) (1951).

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† FRANK PERLMAN, M.D., Associate Clinical Professor of Medicine; Head of Division of Immunology, Allergy, and Infectious Diseases (1935).

B.S. (1931), M.D. (1933), Wisconsin.

ROBERT H. PERSELLIN, M.D., Assistant Professor of Medicine (1964).

B.S. (1952), M.D. (1956), M.S. (1959), Northwestern.

|| CLARE G. PETERSON, M.D., Professor of Surgery (1944).

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† EDWARD N. PETERSON, M.D., Clinical Instructor in Obstetrics and Gynecology (1961).

B.S. (1952), M.D. (1954), Minnesota.

† HEYES PETERSON, M.D., Clinical Associate in Medicine (1947).

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† ALEXANDER E. PETROFF, M.D., Clinical Instructor in Otolaryngology (1960).

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† CARL A. PETTERSON, M.D., Clinical Instructor in Medicine (1957).

B.A. (1938), M.D. (1942), Kansas.

DAVID S. PHILLIPS, Ph.D., Instructor in Medical Psychology (1963).

A.B. (1958), Wabash; M.S. (1960), Ph.D. (1962), Purdue.

JEANNE S. PHILLIPS, Ph.D., Assistant Professor of Medical Psychology (1957).

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† RICHARD H. PHILLIPS, M.D., Clinical Instructor in Psychiatry (1964).

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JAMES R. PHILP, M.D., Assistant Professor of Pathology (1963).

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† NIGEL A. PICKERING, M.D., Clinical Instructor in Clinical Pathology (1961).

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† WAYNE M. PIDGEON, M.D., Clinical Instructor in Psychiatry (1959).

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† CHARLES T. PINNEY, M.D., Clinical Instructor in Medicine (1959).

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BERNARD PIROFSKY, M.D., Associate Professor of Medicine (1956).

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DONALD M. PITCAIRN, M.D., Associate Professor of Medicine; Head of Division of Chest Diseases (1949).

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† ROBERT G. PITTENGER, M.D., Clinical Instructor in Medicine (1957).

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† JOHN KARL POPPE, M.D., Clinical Associate in Cardiopulmonary Surgery (1946).

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GEORGE A. PORTER, M.D., Assistant Professor of Medicine (1964).

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- ARLEN QUAN, M.D., Instructor in Psychiatry (1964).
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- ALFRED J. RAMPONE, Ph.D., Associate Professor of Physiology (1955).
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- †JESSE L. RAY, M.D., Assistant Clinical Professor of Obstetrics and Gynecology (1953).
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- †RALPH B. REAUME, M.D., Clinical Associate in Medicine (1959).
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- †SHERMAN E. REES, M.D., Clinical Associate in Radiology (1929).
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- †DANIEL L. REED, M.D., Clinical Instructor in Surgery (1964).
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- DEMETRIOS A. RIGAS, Ph.D., Professor of Biochemistry and Experimental Medicine (1953).
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- ROY L. SWANK, M.D., Ph.D., Professor of Medicine; Head of Division of Neurology (1953).
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- †ROBERT H. TINKER, M.D., Clinical Instructor in Surgery (1942).
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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 (Veterans Hospital) (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 Cardiopulmonary 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.
- NORTON B. YOUNG, Ph.D., Assistant Professor of Audiology, Pediatrics (1960).
B.S. (1950), M.A. (1953), University of Washington; Ph.D. (1957), Purdue.
- †WILLIAM C. YOUNG, Ph.D., Professor of Anatomy (Primate Center) (1964).
B.A. (1921), M.A. (1925), Amherst; Ph.D. (1927), Chicago.
- ‡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.
- †RICHARD C. ZIMMERMAN, M.D., Clinical Instructor in Orthopedic Surgery (1964).
B.S. (1955), M.D. (1957), Oregon.
- WILLIAM A. ZIMMERMAN, B.S., Assistant Dean for Business Affairs; Professor (1945).
B.S. (1939), Oregon.

† Volunteer.

‡ Part-time.

|| On leave of absence; Adviser in Surgery, Faculty of Medicine, Chiangmai, Thailand.

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., Associate Medical Director and Associate Administrator.

MYRON R. GROVER, JR., M.D., Assistant Medical Director and Assistant Administrator.

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

GEORGE M. AUSTIN, M.D., Chief of Neurological Surgical 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.

SEPTON ROBERT WELLINGS, M.D., Acting Chief of Pathological Service.

DAVID D. DEWEESE, M.D., Chief of Otolaryngological Service.

CHARLES T. DOTTER, M.D., Chief of Radiological 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 Anesthesiology Service.

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.

HAROLD J. NOYES, D.D.S., M.D., Chief of Dental Medical Service.

RICHARD W. OLMSTED, M.D., Chief of Pediatric Service.

ROBERT D. KOLER, M.D., Chief of Hematology Service.

FRANK PERLMAN, M.D., Chief of Immunology, Allergy, and Infectious Diseases 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.

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.

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.
ELIZABETH STENBERG, B.S., R.N., Medical-Surgical Supervisor.
ELEANOR M. BANGS, R.N., Surgery Supervisor.
DOROTHY CAHILL, R.N., Auxiliary Personnel Supervisor.
EVELYN BARTON, R.N., Night Supervisor.
DARLENE WARKENTIN, B.S., R.N., Assistant Night Supervisor.
OPAL McCRAE, R.N., Assistant Night Supervisor.
HELEN FOUNTAIN, R.N., Evening Supervisor.
LOIS LAUZIERS, B.S., R.N., Evening Supervisor.
ROSELLA SCHMIDT, B.S., R.N., Assistant Evening Supervisor.
PEGGY COOKE, R.N., Head Nurse.
BETTY Jo EDDINS, R.N., Head Nurse.
ELIZABETH FLANAGAN, B.S., R.N., Head Nurse.
FREDERICKA GRABLE, R.N., Head Nurse.
SARAH HODGES, R.N., Head Nurse.
CATHERIAN MILLHORN, R.N., Head Nurse.
MARYANN POWERS, B.S., R.N., Head Nurse.
DORIS STITELY, R.N., Head Nurse.
MAXINE SUTTON, R.N., Head Nurse.
FLORENCE SWEENEY, R.N., Head Nurse.
BEVERLY TRAPPE, B.S., R.N., Head Nurse.
RENAME WHITTAKER, R.N., Head Nurse.
REGINA MOCKMORE, B.S., R.N., Admitting Supervisor.
GLEN F. CRITESER, Laundry Manager.
MAXINE FREEMAN, Executive Housekeeper.
MARGARET ORTH, B.S., Dietitian.
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 Associate 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.
LA VERNE HONEY, R.N., Supervisor.
LORRAINE NELSON, B.S., R.N., Clinical Instructor.
JUNE SATCHFIELD, B.S., R.N., Supervisor.
ALICE SHARP, R.N., Surgical Supervisor.
EMMA H. McWILLIAMS, R.N., Supervisor.
JEAN CALDWELL, B.S., R.N., Head Nurse.
SHIRLEY FRANZEN, R.N., Head Nurse.
JUDITH HICKS, R.N., Head Nurse.
LEANN POOLE, R.N., Head Nurse.

MARY RICHESON, R.N., Head Nurse.
RUTH SCHOEPPER, R.N., Head Nurse.
JEAN SCHROPPER, B.S., R.N., Head Nurse.
BERNICE SETERE, B.S., R.N., Head Nurse.
THELMA WADDILL, R.N., Head Nurse.
BEVERLY WARD, R.N., Head Nurse.
HELEN COLGAN, Ph.G., Pharmacist.
HENRY L. DOENEKA, Chief Engineer.
FRANCES E. MORSE, 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.
SYDNEY BROWNSTONE, M.D., Physician.
DAVID T. McKEOWN, B.A., Business Manager.
HELEN KRIEG, B.S., R.N., Director of Nursing Service.
KAREN Z. SPALL, B.S., Dietitian.
ARNOLD BRADSHAW, Housekeeper.
CARL W. LACY, Superintendent of Physical Plant.

Crippled Children's Division

RICHARD L. SLEETER, M.D., Director; Professor of Pediatrics.
VICTOR D. MENASHE, M.D., Assistant Director; Assistant Professor of Pediatrics.
L. PAUL RASMUSSEN, M.D., Associate Professor of Pediatrics.
HEROLD S. LILLYWHITE, Ph.D., Professor of Speech Pathology.
S. GORHAM BABSON, M.D., Associate Professor of Pediatrics.
ROBERT BOYD, Ph.D., Associate Professor of Medical Psychology.
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 (Dental School).
RODNEY K. BEALS, M.D., Assistant Professor of Orthopedic Surgery.
C. CONRAD CARTER, M.D., Assistant Professor of Neurology.
CONSTANCE HANF, Ph.D., Assistant Professor of Medical Psychology.
LAURENCE R. LANGSTON, M.D., Clinical Associate in Orthopedic Surgery.
JOHN S. GULLICKSON, D.D.S., Clinical Instructor in Dental and Oral Medicine.
NORTON B. YOUNG, Ph.D., Assistant Professor of Audiology, Pediatrics.
GLADYS BELL, A.B., A.C.S.W., Medical Social Consultant.
SHIRLEY BUXTON, M.S.W., Medical Social Consultant.
LESTER HUNTER, 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.
SARA ELLEN HALL, B.S., Physical Therapist.

VIRGINIA R. HATCH, B.S., Occupational Therapist.

CORNELIA WEISS, 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. OLMSTEAD, 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.

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.

WARREN H. FAY, Ph.D., Instructor in Speech Pathology, Pediatrics.

KATHERINE S. FRENCH, Ph.D., Assistant Professor of Anthropology, Pediatrics.

RICHARD L. LESSEL, M.P.H., Instructor in Public Health and Preventive Medicine.

ROBERTA MURRAY, Ph.D., Instructor in Speech Pathology, Pediatrics.

BARBARA GOFFENEY, M.A., Research Assistant in Psychology.

General Information

THE UNIVERSITY OF OREGON MEDICAL SCHOOL is located in Portland (population 377,957), 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.

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. This facility is now closed and the patients have been transferred to the *Oregon State Tuberculosis Hospital*, Salem, as a result of action by the 1963 Oregon State Legislature. Administration of the *Oregon State Tuberculosis Hospital* was transferred to the State Board of Higher Education under the 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.

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 100,000 volumes of books and bound and unbound periodicals. Approximately 1,600 current periodicals are received. Through the privileges of interlibrary loan and microfilm service, it is possible to obtain within a few days materials not contained in this collection. The Library has a copying machine for the duplication of material in the Library 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 Examiners, the Portland Academy of Medicine and the Multnomah County Medical Society contribute to the annual operating fund. Public acknowledgement of gifts to the Library is made annually in the Medical School's *Gift List*.

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.

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, expanding 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 two-story 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 *Women's Residence Hall* (1964), a modern, \$855,000 structure, houses 170 women students from the Medical, Nursing, and Dental Schools.

The *Medical School Farm*, a 180-acre farm southwest of Portland, was purchased in 1961 to house and breed animals for teaching and investigative programs. The farm is ideally suited to the raising and breeding of animals in their natural environments.

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 107). 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 174 full-time faculty members serving in its basic and clinical science departments and more than 525 part-time and volunteer 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 (see Graduate Studies Catalog), 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 radiologic technology, and a one-year internship in dietetics 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 107).

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 \$5,000,000 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 to engage in and support educational, research, and related activities. It is administered by a board of 20 trustees through the office of the director, which is located on the campus of the University of Oregon Medical School. The foundation's funds are derived principally from gifts, grants, and bequests which are administered by the foundation in accordance with the terms under which they are received. Unrestricted income is used by the foundation to meet critical needs and develop educational and research opportunities as they arise. Grants are awarded by the Board of Trustees on the basis of recommendations from the foundation's scientific review committee. The foundation administers the Oregon Regional Primate Research Center.

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 Institutional Relations maintains alumni records and assists in administering Alumni Association activities. Alumni Association officers for 1964-65 are:

DR. JOYLE O. DAHL, '30, Portland.....	President
DR. IVAN I. LANGLEY, '43, Portland.....	Vice-President
DR. JOHN E. HARRIS, '50, Minneapolis.....	Vice-President
DR. BARBARA RADMORE KIMBALL, '50, Salem.....	Vice-President

DR. NOEL B. RAWLS, '40, Warrenton.....	Vice-President
DR. RICHARD E. LAHTI, '55, Cottage Grove.....	Vice-President
DR. THOMAS R. MONTGOMERY, '32, Portland.....	Secretary
DR. DONALD E. OLSON, '47, Portland.....	Treasurer

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 non-denominational 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

luncheon for freshmen given by the Alumni Association and the dean's reception for new students are included in the fall social calendar; a reception for graduates following commencement ceremonies is 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 lost 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 Council for Tobacco Research, U.S.A.

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 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 106, 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, one-third 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.

Surgical Sales Scholarship. The Surgical Sales Company of Portland has for several years provided funds for a scholarship of approximately \$250 per year to a deserving medical student.

Friendly Rosenthal Scholarship. The Friendly Rosenthal Foundation of Portland provides funds for a limited number of scholarships each year to qualified medical students. Scholarship awards are usually \$500.

Henry Waldo Coe Prize. This prize, established in 1929, is awarded to a second-, third-, or fourth-year student in the Medical School who presents an essay on a medical subject exhibiting superiority and originality in composition. The prize consists of the interest on a gift of \$1,000 from the late Dr. Henry Waldo Coe.

George T. Gerlinger Memorial Graduation Gift. An annual award of \$100 is presented to an outstanding senior from Benton, Linn, or Polk County. The award is supported through a gift presented by the late Mrs. George T. Gerlinger in 1952 in memory of her husband.

Joseph Lipschutz Memorial Essay Award. An award of \$50 is made annually to the fourth-year medical student who writes and presents the best paper in the field of pediatrics. The award is supported by a \$600 fund contributed by private donors as a memorial to Dr. Joseph Lipschutz, a graduate of the Medical School who gave his life for his country in World War II.

Loan Funds. The Medical School has loan funds available for students. In general, loans fall into two classifications—emergency and long-term loans. Long-term loans are generally limited to \$500 a year or to a maximum of \$1,000 to any one student. Emergency funds are available for small, short-term loans. Interest rates vary with the fund used and application should be made to the Medical School Business Manager's Office.

Ben Selling Loan Fund. This fund, a bequest from the late Mr. Ben Selling, is administered by Dr. Laurence Selling and the Trust Department of the First National Bank of Oregon.

W. K. Kellogg Loan Fund. In May 1942, the W. K. Kellogg Foundation established a \$10,000 loan fund at the University of Oregon Medical School for the financial assistance of medical students. Preference is given to first-, and second-year students who have demonstrated scholastic ability, character, and need. The usual loan is \$250. Loans are administered through the office of the dean.

F. E. Jacobs Memorial Loan Fund. This loan fund was established in 1950 through gifts from relatives and friends of the late Dr. F. E. Jacobs, a 1929 graduate of the University of Oregon Medical School. Loans are made to senior medical students. The fund at present totals approximately \$1,000.

University of Oregon Loan Funds. Medical School students are eligible for loans from the University of Oregon student loan fund on the same basis as students on the campus at Eugene.

Health Professions Student Loan Program. Under the provisions of the Health Professions Educational Assistance Act of 1963, funds have been provided by the Federal government for loans to medical students. The maximum loan available is \$2,000 per year. Preference is given to applicants entering medical school after June 30, 1963.

Dr. Francis Ortschild Memorial Fund. This loan fund, approximately \$65,000, was established in 1960 through a bequest under the will of Viola Ortschild of Portland. It is to be used for loans to needy and worthy medical students.

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.

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.

	Term	Hours
Chemistry.....		24
General inorganic, which may include qualitative analysis.....	12	
Quantitative analysis, emphasis on volumetric analysis.....	4	
Organic (with laboratory).....	8	
Biology.....		15
General biology or zoology.....	9	
Selections from embryology, genetics, or comparative anatomy (in this order of preference).....	6	
Physics (with laboratory).....		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 balance 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 advisers.

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.

* 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 premedical programs. See the University of Oregon Catalog for specific courses that meet the literature requirements.

Application Procedure. Application forms may be obtained from the Medical School Registrar, and all credentials should be sent to the Registrar. 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 November 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 November 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 fee 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 2¼" x 2¼" 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

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

Medical students, Oregon residents, per term.....	\$235.00
Medical students, nonresidents, per term.....	371.00
Graduate students (candidates for M.A., M.S., Ph.D.), per term.....	110.00
Graduate students enrolled for 7 term hours of work or less.....	\$14.00 per term hour (minimum, \$28.00)
Graduate students employed as research assistants or fellows, per term.....	36.00

Deposits

¹ Deposit to reserve place in entering class (applied on tuition).....	\$25.00
² Breakage deposit, per year—first and second years.....	\$15.00
² 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.....	\$20.00 per term hour (minimum \$40.00 per term)
Auditor's fee for lectures, per term hour.....	\$ 5.50
An auditor is a person who has obtained permission to attend classes without receiving academic credit.	
Transcript fee.....	\$ 1.00
One transcript is issued free; a fee of \$1.00 is charged for each additional transcript.	
Evaluation fee.....	\$ 5.00
The evaluation fee is charged for the evaluation of transcripts submitted with the application for admission; not refundable.	
Late-registration fee, per day (no maximum).....	\$ 1.00
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.	
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:

¹ See page 65.

² 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.

Tuition and fees, full-time resident students.....	\$ 705.00
Tuition and fees, full-time nonresident students.....	1,113.00
Breakage deposit.....	15.00
Microscope fee.....	18.00
Books and supplies.....	135.00
Board and room.....	1,000.00
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 parent or guardian is a bona fide resident of Oregon qualifies for enrollment under the resident fee; a student whose domicile is independent of his parent or guardian qualifies for enrollment under the resident fee if he presents convincing evidence that he established his domicile in Oregon six months prior to his first registration.

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.

A student who has been classified as a nonresident may be reclassified as a resident:

(1) In the case of a minor, if his parent or guardian has moved to Oregon and has established a bona fide residence in the state, or

(2) In the case of a student whose domicile is independent of that of his parent or guardian, 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, and that he has no intention of moving out of the state after completion of his school work.

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 Registrar's Office.

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

Grading System and Grades. 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 re-evaluation of the student by the departments in which he has 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.

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 pre-medical 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 5,352 class hours of required work. Descriptions of courses are to be found under the several departmental headings.

Prescribed Work

First Year

	Aggregate class hours				Term hours
	Lecture	Lab.	Clinic	Total	
An 411, 412, 413.....Gross Anatomy	108	360	....	468	19
An 415.....Histology	36	108	....	144	6
An 511.....Neurology	24	72	....	96	4
BCh 411, 412.....Biochemistry	96	180	....	276	13
Phy 411.....Human Physiology	60	108	....	168	8
Med Ps 411, 412.....Intro. to Medical Psychology	48	....	....	48	4
PH 411.....Statistical Methods	12	36	....	48	2
	384	864	....	1,248	56

Second Year

Bac 413, 414.....Med. Microbiology & Immunology	72	144	....	216	10
CP 511.....Intro. to Clinical Pathology	36	72	....	108	5
Pth 511.....General Pathology	96	192	....	288	13
Phc 511, 512.....Pharmacology	96	72	....	168	10
Phy 412.....Human Physiology	48	72	....	120	6
Med 612.....Physical Diagnosis	72	....	72	144	9
Psy 511, 512.....Interview. Tech. & Psychiatric Med.	24	48	....	72	4
PH 512, 513.....Epidemiology	36	36	....	72	4
Sur 610.....Introduction to Surgery	36	....	....	36	3
	516	636	72	1,224	64

Third Year

Pth 655.....Surgical Pathology .....	....	36	....	36	1½
Med 630.....Third-Year Medicine	72	....	372	444	21½
Derm 615, 616.....Lect. & Demon. in Dermatology	24	....	....	24	2
Psy 615.....Lectures in Clinical Psychiatry	12	....	....	12	1
Psy 630.....Clinical Clerkship .....	....	36	....	36	1½
Rad 615.....Radiographic Diagnosis	36	....	....	36	3
PH 511.....Principles of Public Health	36	....	....	36	3
Sur 630.....Third-Year Surgery	60	....	372	432	20½
Eye 615.....Eye	12	....	....	12	1
ENT 615.....Ear, Nose & Throat	12	....	....	12	1
Obs-Gyn 630.....Third-Year Obstetrics & Gynecology	48	....	156	204	10½
Ped 630.....Third-Year Pediatrics	36	....	192	228	11
	348	72	1,092	1,512	77½

Fourth Year

CP 650.....Clinical Pathology	12	....	....	12	1
Pth 650.....Clinical Pathological Conference .....	....	....	12	12	½
Pth 653.....Forensic Medicine	12	....	....	12	1
Pth 654.....Oncology	12	....	....	12	1
Med 657.....Toxicology & Occupational Medicine	12	....	....	12	1
Med 658.....Medical Economics	12	....	....	12	1
Med 670.....Fourth-Year Medicine	36	....	288	324	15
Derm 670.....Dermatology Outpatient Clinic .....	....	....	36	36	1½
DM 650.....Dent. Facial Growth & Oral Path.	12	....	....	12	1
Psy 670.....Psychiatry Outpatient Cl. & Clerk. ....	....	....	48	48	2
Sur 670.....Fourth-Year Surgery	24	....	344	368	16
Eye 650.....Eye	12	....	....	12	1
Eye 670.....Eye Outpatient Clinic .....	....	....	74	74	3
ENT 670.....Fourth-Year Ear, Nose & Throat .....	....	....	74	74	3
Obs-Gyn 670.....Fourth-Year Obs. & Gyn. ....	....	....	228	228	9½
Ped 670.....Fourth-Year Pediatrics .....	....	....	120	120	9
	144	....	1,224	1,368	66½

Recapitulation

	Aggregate class hours				Term hours
	Lecture	Lab.	Clinic	Total	
First year	384	864	....	1,248	56
Second year	516	636	72	1,224	64
Third year	348	72	1,092	1,512	77½
Fourth year	144	....	1,224	1,368	66½
	1,392	1,572	2,388	5,352	264

Prescribed Work by Departments

	Aggregate class hours
Anatomy	708
Bacteriology	216
Biochemistry	276
Clinical Pathology	120
Medical Psychology	48
Pathology	360
Pharmacology	168
Physiology	288
Medicine	1,008
Psychiatry	168
Radiology	36
Public Health	156
Surgery	836
Ophthalmology	98
Otolaryngology	86
Obstetrics & Gynecology	432
Pediatrics	348
Total hours	5,352

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 Conference
507. Seminar

Basic Science Departments

Anatomy

ANTHONY A. PEARSON, Chairman of Department

Professors

ROBERT L. BACON

ANTHONY A. PEARSON

WILLIAM A. STOTLER

Associate Professors

DAVID L. GUNBERG

ARCHIE R. TUNTURI

Assistant Professor

RICHARD B. LYONS

Clinical Instructor

JOHN E. SWETT

Research Assistants

BRENDA BENNETT
M. BARBARA LEIGHTON

JEAN MALEN
MEREDITH MUNDORFF

RONALD W. SAUTER
DOLORES M. WAHL

REQUIRED COURSES

FIRST YEAR

An 411, 412, 413. **Gross and Developmental Anatomy.** 7 hours fall, 9 hours winter, 3 hours spring.

Regional dissection of the human body. Each pair of students dissects the lateral 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. Lectures, demonstrations, and laboratory include the reproductive cycle, fertilization, normal and abnormal human embryological development. Fall: lectures, demonstrations, and quizzes, 3

hours a week; laboratory, 12 hours a week. Winter: lectures, demonstrations, and quizzes, 4 hours a week; laboratory 15 hours a week. Spring: lectures, demonstrations, and quizzes, 2 hours a week; laboratory, 3 hours a week. 468 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 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 1620: uses of Fortran (formula translation) and S.P.S. (Symbolic Programming System); elements of programming and examples of programs.

An 517. Embryology. 4 hours.

Lectures on reproductive cycle, fertilization, normal and abnormal human development, correlated with detailed laboratory study of pig, mouse, and human embryos and fetuses. Primarily for graduate students. Lectures, 2 hours a week; laboratory, 6 hours a week. Limited to 10 students.

An 611. Applied Anatomy. 2 hours.

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

ARTHUR W. FRISCH

*EVELYN L. OGINSKY

Associate Professor

LYLE VEAZIE

Assistant Professors

CHARLES E. GARDNER

ARTHUR MALLEY
(Primate Center)

ERNEST A. MEYER

Instructor

RUTH A. MYLLENBECK

Research Assistants

GORDON H. DAVIES

MEREDITH MEARS
JOAN SAILOR

RUTH SIGAL

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 during 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 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.

* On leave of absence Apr. 1, 1964 to Aug. 1, 1964, Institute of Microbiology, Rutgers University, New Brunswick, N.J.

Biochemistry

EDWARD S. WEST, Chairman of Department

Professors

A. WESLEY HORTON
DAVID S. JACKSON

HOWARD S. MASON
DEMETRIOS A. RIGAS
WILBERT R. TODD

JOHN T. VAN BRUGGEN
EDWARD S. WEST

Associate Professors

CLARISSA H. BEATTY
(Primate Center)

ANTONIO E. COLAS
JACK H. FELLMAN

RICHARD T. JONES
NICHOLAS NICOLAIDES

Assistant Professors

ROSE MARY BOCEK
(Primate Center)
J. RUSSELL CLAYBROOK
(Primate Center)

MARVIN C. HINES
DALE D. HOSKINS
(Primate Center)

ANNE M. PERLEY
(Primate Center)
ELLEN L. TALMAN
(Primate Center)

Instructor

THOMAS FUJITA

Research Associates

BARRY ALLEN

RUSSELL JOLLY
ELINOR LEVIN

K. MURAKAMI

Research Assistants

LESTER LAAESTUEN

PAUL MACMAHILL
EMIL SCHNEIDER

JEAN SCOTT

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.

BCh 511. **Biological Information Transfer.** 2 hours.

The biochemistry of heredity, growth, aging, and differentiation, and its relationship to disease. The biochemistry and biosynthesis of nucleic acids and their components; protein biosynthesis.

BCh 512. **Biological Energy Transformations.** 2 hours.

Bioenergetics, energy transductions: oxidative phosphorylation, biological oxidation-reduction, active transport, muscle contraction, nerve conduction, biosynthesis from the energy viewpoint.

BCh 513. **Advanced Intermediary Metabolism.** 2 hours.

Nutrition, advanced aspects of the metabolism of lipids, sterols, carbohydrates, amino acids and proteins, tissues.

BCh 514. **Enzymology.** 2 hours.

The physical and chemical properties of enzymes and the reactions they catalyze.

BCh 515. **Biophysical Chemistry of Macromolecules.** 2 hours.

The principles and methods employed in determining the size, shape, charge, and thermodynamic properties of biological macromolecules; physical aspects of their interaction, and of the relationship of structure to function.

BCh 516. Biochemical Techniques and Instrumentation. 4 hours.

Preparation and characterization of substances of biochemical importance; the study of biochemical processes; theory and use of radioisotopes as tracers; instrumentation theory and practice. Lectures and laboratory.

Clinical Pathology

TYRA T. HUTCHENS, Chairman of Department

Professors

CLIFFORD V. ALLEN
(Radioisotopes)

TYRA T. HUTCHENS

Associate Clinical Professors

HOMER H. HARRIS

JAMES H. LIUM

Assistant Professors

JAMES L. BRAMHALL

MARTHA L. HAMILTON

GERALD J. LATTIG

Assistant Clinical Professors

EUGENE W. LANDRETH

ALBERT A. OYAMA

Instructors

MARY E. BAPTIST
(Medical Technology)

JOHN D. KOONTZ

VICTOR C. MARQUARDT

Clinical Instructors

DANIEL M. BAER

DAVID J. BROWN
NIGEL A. PICKERING

DAVID S. TAKALO

Residents

JOHN T. DIFFERDING
ROBERT F. MALISON

JAMES E. ODELL

JOHN H. RIPPEY
THELMA MARIE SMITH

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 S. BROWN
FREDERICK H. KANFER

JOSEPH D. MATARAZZO

GEORGE SASLOW
(Psychiatry)

ROBERT D. BOYD	<i>Associate Professors</i>	RICHARD F. THOMPSON
	JAMES E. LINDEMANN RUTH G. MATARAZZO	
BRUCE V. BUTLER ROBERT D. FITZGERALD	<i>Assistant Professors</i>	JEANNE S. PHILLIPS ARTHUR N. WIENS
	CONSTANCE HANF JOHN O. KANGAS	
	<i>Instructor</i>	
	DAVID S. PHILLIPS	
	<i>Residents</i>	
PHYLLIS Y. LIU		FRANK B. STRANGE

REQUIRED 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.** 3 hours, terms to be arranged.

Advanced General Psychology	Psychopharmacology
Advanced Physiological Psychology	Advanced Personality
Psychometric Methods	Quantitative Methods
Verbal Behavior	Computer Operation
Social Psychology	Laboratory Methods
Developmental Psychology	Neurophysiology of Learning

Med Ps 511. **Statistics.** 3 hours fall.

Survey of elementary statistical methods necessary for research, including measurement, central tendency, variability, probability, sampling, inference, large sample theory, t , x^2 , F , and nonparametric techniques.

Med Ps 512. **Research Design.** 3 hours winter.

Survey of applications of analysis of variance technique to problems of experimental design, including independent and repeated measures, latin square, trend analysis, orthogonal polynomials, and more general topics of experimental design.

Med Ps 513. **Advanced Statistics.** 3 hours spring.

Analysis of the foundations of measurement, quantitative methods, correlation and regression theory, factor analysis, basis of psychophysical methods, set theory, and special topics.

Med Ps 514. **Sensation and Perception.** 3 hours fall.

Review of the basic physiological and neurological mechanisms of audition, vision, olfaction, and gustation, followed by a survey of the major experimental and theoretical works in perception.

Med Ps 515. **Learning and Conditioning.** 3 hours fall.

An intensive and critical examination of evidence relating to basic learning phenomena in both humans and animals, with major emphasis on the following problems: classical and instrumental conditions, primary and secondary reinforcement, generalization, discrimination, and motivation and learning.

Med Ps 516. **Motivation.** 3 hours winter.

Systematic survey of the role of the concept of motivation in behavior theory, including an examination of criteria for identifying motivational variables and

the logic of drive quantification; effects of primary and secondary sources of drive on performance, associative alternatives to motivational concepts, motivation and perception, motivational consequences of frustration and conflict, and the exteroceptive drives of curiosity and exploration.

Med Ps 517. **History of Psychology.** 3 hours summer.

History of psychology from the times of the early Greek philosophers to the contemporary period; special emphasis on such prominent historical developments in psychology as structuralism, functionalism, associationism, behaviorism, Gestalt psychology, and psychoanalysis.

Med Ps 518. **Physiological Psychology.** 3 hours winter.

Survey of the basic literature in the field, with emphasis on the role of the central nervous system in behavior; fundamentals of neuroanatomy and neurophysiology basic to physiological psychology.

Med Ps 519. **Theories of Personality.** 3 hours spring.

Critical review of the major theories of personality, including current behavioral approaches, and empirical evidence supporting these theories.

Med Ps 520. **Individual Differences.** 3 hours summer.

Introduction to individual differences in humans, their distribution in the general population, and methods of measuring such differences in intelligence, personality, aptitudes, interests, and other traits; characteristics of good tests, and their uses and limitations.

Med Ps 521. **Theories of Learning.** 3 hours spring.

Analysis and comparison of the major theories of learning, covering their logical and systematic properties as well as their empirical foundations.

Pathology

SEPTON R. WELLINGS, Acting Chairman of Department

Professor Emeritus

FRANK R. MENNE

Professor

BENJAMIN V. SIEGEL

Clinical Professors

WARREN C. HUNTER

VINTON D. SNEEDEN

Associate Professors

WILBUR P. McNULTY
(Primate Center)

NELSON R. NILES

SEPTON R. WELLINGS

Associate Clinical Professors

RUSSELL C. HENRY

SHELDON A. JACOBSON
E. COLTON MEEK

JOSEPH E. NOHLGREN

Assistant Professors

ROBERT E. COOPER, JR.

JAMES R. PHILP

DALJIT S. SARKARIA
(Veterans Hospital)

Assistant Clinical Professors

CLARENCE L. CHESTER
TERENCE H. COCHRAN

OTTO R. EMIG
WILLIAM L. LIDBECK
ALBERT A. OYAMA

JOHN C. SMITH II
GRIER F. STARR

Clinical Associate

NORMAN H. RICKLES

Instructors

JEAN H. BOYES

ROBERT E. BROOKS

JAMES DEWITT RANKIN

Residents

MOHAMMED M. ABED

ARTHUR L. KOEHLER

JAMES B. SAWYER

REQUIRED COURSES

SECOND YEAR

Pth 511. **General and Systemic Pathology.** 5 hours fall, 5 hours winter, 3 hours spring.

Fall: general principles of disease; study of prepared slides supplemented by experiments and study of selected autopsies by all students; fresh and museum specimens; Kodachrome slides and Scopicon orientation. Winter and spring: continuation of the study of disease states of the various body systems. Fall: lectures and recitations, 3 hours a week; laboratory, 6 hours a week. Winter: lectures, 3 hours a week; laboratory, 6 hours a week. Spring: lectures, 2 hours a week; laboratory, 4 hours a week. 288 hours.

THIRD YEAR

Pth 655. **Surgical Pathology.** 1½ 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 650. **Clinical Pathological Conference.** ½ hour winter.

Discussions of the clinical and pathological features of selected cases. 1 hour a week; 12 hours.

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 507. **Seminar.** Spring 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 519. **Introduction to Electron Microscopy.** 2 hours fall.

An introductory course including illustrated lectures and demonstrations dealing with the electron microscope, its technical operations, and broad applications in biological studies and research. Offered alternate years.

Pth 520. **Principles and Techniques of Tissue Culture.** 2 hours fall.

Lectures, demonstrations, and conferences dealing with techniques of cell and tissue culture; designed to provide a background of general information on cultured cells and instruction in application of the method to problems in current areas of research in cell biology. Offered alternate years.

Pth 521. Biology of Cancer. 1 hour spring.

Lectures and discussions on the natural history of cancer, geographic and ethnologic aspects, tumor genetics, and etiologic concepts and mechanisms of carcinogenesis.

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

ELTON L. McCAWLEY

Associate Professor

JOHN D. GABOUREL

Associate Clinical Professor

H. LENOX H. DICK

Assistant Professor

ROBERT E. BRUMMETT

Instructor

KAYE E. FOX

Research Associate

MELVIN M. REEVES

Research Assistants

BEVERLEY CLELAND

STERLING M. SORENSON

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

Professor

JOHN M. BROOKHART

Associate Professors

ALFRED J. RAMPONE

BENJAMIN B. ROSS

JOSEPH B. TRAINER

ROBERT E. SWANSON

Research Assistants

SHARON BILLINGS

J. CRAIG HAMBLETON

WILLIAM R. RENCKEN

Clinical Research Associates

GEORGE M. AUSTIN

MONTA A. GREER

MOSES E. STEINBERG

DONALD M. PITCAIRN

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 pressure, 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, carrier-mediated 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; laboratory, 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

LYLE B. KINGERY
MERL L. MARGASON

HOMER P. RUSH
LAURENCE SELLING

Professors

DAVID W. E. BAIRD
RICHARD L. DOBSON
MONTE A. GREER
HERBERT E. GRISWOLD
HANCE F. HANEY
CHARLES N. HOLMAN
ROBERT D. KOLER

DANIEL H. LABBY
HOWARD P. LEWIS
WALTER C. LOBITZ
JAMES METCALFE
EDWIN E. OSGOOD
DEMETRIOS A. RIGAS
(Experimental Medicine)

LEONARD W. RITZMANN
(Veterans Hospital)
ARTHUR J. SEAMAN
RAYMOND R. SUSKIND
ROY L. SWANK
JOHN R. WALSH
(Veterans Hospital)

Clinical Professors

LEON F. RAY

THOMAS S. SAUNDERS
WILLIAM H. SHELDON

SHELDON A. WALKER

Associate Professors Emeriti

ISIDOR C. BRILL

MERLE W. MOORE

MATTHEW C. RIDDLE

Associate Professors

JAMES H. AUSTIN
DANIEL M. BACHMAN
JOHN A. BENSON, JR.
JARVIS GOULD
RICHARD T. JONES
MANUEL R. MALINOW
(Primate Center)

ROBERT E. MASS
(Veterans Hospital)
JAMES F. MORRIS
(Veterans Hospital)
NICHOLAS NICOLAIDES
BERNARD PIROFSKY
DONALD PITCAIRN

FREDERIC W. SMITH
(Veterans Hospital)
JAMES T. SPEROS
JANICE R. STEVENS
JOSEPH B. TRAINER
ZOLTON T. WIRTSCHAFER
(Veterans Hospital)

Associate Clinical Professors

FRANK W. CROWE
JOYLE DAHL
ROBERT S. DOW

HULDRICK KAMMER
GEORGE B. LONG
FRANK PERLMAN
EDWARD E. ROSENBAUM

PHILIP SELLING
JOHN E. TUHY
FRANKLIN J. UNDERWOOD

Assistant Professors

RICHARD E. BAILEY
MICHAEL D. BAIRD
ROBERT H. BIGLEY
J. DAVID BRISTOW
C. CONRAD CARTER
MILES J. EDWARDS

JACK H. FELLMAN
(Neurochemistry)
ROBERT D. GOLDMAN
MYRON R. GROVER, JR.
KENNETH M. HALPRIN
GORDON D. HAYNIE
(Veterans Hospital)
DONALD G. KASSEBAUM

JOHN W. KENDALL
LOUIS LINO
RICHARD B. LYONS
ROBERT D. MICHEL
WILLIAM A. NEILL
ROBERT H. PERSELLIN
GEORGE A. PORTER

Assistant Clinical Professors

KURT W. AUMANN
ARTHUR W. BERG
GEORGE A. BOYLSTON
CHARLES W. COFFEN
AUBREY M. DAVIS
DONALD E. FORSTER
WILLIAM P. GALEN
MORTON J. GOODMAN
MARCUS M. HORENSTEIN

FREDERICK A. J. KINGERY
MARION L. KRIPPAEHN
JOHN J. KRYGIER
ERNEST T. LIVINGSTONE
LAURENCE MACDANIELS
JOHN CLIFFTON MASSAR
ROY R. MATTERI
DONALD E. OLSON

OTTO C. PAGE
GEORGE M. ROBINS
LEONARD B. ROSE
MARVIN SCHWARTZ
JOHN L. SOELLING
JOHN W. STEPHENS
WILLIAM J. SWETT
DAVID K. TAYLOR
CHARLES P. WILSON

Associates

MAX A. FORSE
(Veterans Hospital)

PETER J. GALANTE
(Veterans Hospital)

Clinical Associates

SAMUEL T. BEALL
WILLIAM S. BECK
ARTHUR M. BERGMAN
PAUL R. BURGNER
WILLIAM COHEN
STELLA FISHER
JOHN R. FLANERY
MARVIN C. GOLDMAN
ROBERT L. HARE
THOMAS S. HEALY
JAY C. HOYT
WILLIAM W. HURST
RICHARD H. KOSTERLITZ

LEWIS J. KRAKAUER
WALTER J. KUHLE, JR.
MERLE M. KURTZ
WILBUR L. LARSON
AARNE J. LINDGREN
CHARLES E. LITTLEHALES
GORDON L. MAURICE
GUY R. MCCUTCHAN
RAYMOND A. McMAHON
NORBERT E. MEDVED
THOMAS E. MORRIS, JR.
JOHN J. MURPHY
JOHN D. O'HOLLAREN

JOSEPH F. PAQUET
JOHN W. PARTRIDGE
HEYES PETERSON
RALPH REAUME
JAMES A. RILEY
ROBERT E. RINEHART
WAYNE R. ROGERS
BERNARD F. RYAN
WILLIAM C. SCOTT
WILL L. SENDERS
JOHN M. SHAW
CHARLES W. WATKINS
JOHN B. WILD

Instructors

SIDNEY BROWNSTONE

CLIFFORD A. FRATZKE
JACK H. HUTCHINSON

KARSTEN C. LEWIS

Clinical Instructors

JOHN A. BLANCHARD
*RICHARD B. BYRD
JOHN D. CHASE
BRUCE R. CHENOWETH
RODNEY L. CRISLIP
HARRY W. DANIELL
CONRAD A. DELATEUR
HAROLD P. DYGERT, JR.
LEO J. FREIERMUTH
DAVID C. FRISCH
LEONARD M. GOLDBERG
ROBERT H. GRAY
WALDO E. HARRIS

THOMAS M. HAUN
WILLIAM J. HEMPHILL
PAUL O. KRETSCHMAR
L. WILLIAM LARSON
STEPHEN W. MAKES
HARRY W. MASENHIMER
RUTH L. MERCER
(Dietetics)
WILLIAM R. OLSON
ROY A. PAYNE
CARL A. PETTERSON
CHARLES T. PINNEY
ROBERT G. PITTENGER
W. PETER RILLING

BEATRICE K. ROSE
IRVIN F. RUMBAUGH
DAVID R. RULLMAN
HERBERT J. SEMLER
KENT RONALD SMITH
ROY G. SNODGRASS
CHARLES E. SPRAY
GEORGE V. SQUIRE
RALPH R. SULLIVAN
DONALD W. SUTHERLAND
ROBERT D. WILSON
GORDON T. WOLFE
JAMES V. WOODWORTH

* On leave for military service.

DESCRIPTION OF COURSES

Research Associate

JAMES H. BECK

Residents

ALAN W. AMES
JOHN P. CONDER
WARD E. DICKEY, JR.
DONALD G. EDWARDS

CHARLES T. FISCHER
WILLIAM G. FRIESEN
GORDON R. HONDORF
WESLEY R. JACOBS

WINSTON E. MAXWELL
RICHARD C. MUNTER
KENNETH I. SUTHERLAND
WILLIAM W. WALDEN

Cardiology

HERBERT E. GRISWOLD, Head of Division

Professors

HERBERT E. GRISWOLD
HANCER F. HANEY

JAMES METCALFE

LEONARD W. RITZMANN
(Veterans Hospital)

Professor Emeritus

HOMER P. RUSH

Associate Professor Emeritus

ISIDOR C. BRILL

Associate Professor

MANUEL R. MALINOW
(Primate Center)

Associate Clinical Professors

PHILIP SELLING

FRANKLIN J. UNDERWOOD

Assistant Professors

J. DAVID BRISTOW

DONALD G. KASSEBAUM

Assistant Clinical Professors

CHARLES W. COFFEN
AUBREY M. DAVIS

WILLIAM P. GALEN
LEONARD B. ROSE

MARVIN SCHWARTZ
WILLIAM J. SWETT

Clinical Associates

WILLIAM W. HURST
GORDON L. MAURICE

RALPH REAUME
JAMES A. RILEY

WAYNE R. ROGERS
JOHN B. WILD

Clinical Instructors

LEONARD M. GOLDBERG

IRVIN F. RUMBAUGH
HERBERT SEMLER

DONALD W. SUTHERLAND

Fellow

RICHARD P. LEWIS

Research Associates

MICHAEL T. H. BRODEUR

CYRUS FARREHI

FRANK E. KLOSTER

Chest Diseases

DONALD M. PITCAIRN, Head of Division

Associate Professors

JAMES F. MORRIS
(Veterans Hospital)

DONALD M. PITCAIRN

JAMES T. SPEROS

Associate Clinical Professor

JOHN E. TUHY

Assistant Professors

MILES J. EDWARDS

ROBERT D. MICHEL

Assistant Clinical Professor

DONALD E. OLSON

Associates

MAX A. FORSE
(Veterans Hospital)

PETER J. GALANTE
(Veterans Hospital)

Clinical Associate

WILLIAM COHEN

Clinical Instructor
CHARLES T. PINNEY
Research Assistant
JOANNE MACASKILL

Diabetes and Metabolism

DANIEL H. LABBY, Head of Division

Professor

DANIEL H. LABBY

Assistant Professor

RICHARD E. BAILEY

Assistant Clinical Professors

MARCUS M. HORENSTEIN

OTTO C. PAGE

JOHN W. STEPHENS

Instructor

JACK H. HUTCHINSON

Clinical Associate

ROBERT L. HARE

Research Associate

JAMES H. BECK

Endocrinology

MONTA A. GREER, Head of Division

Professor

MONTA A. GREER

Associate Clinical Professor

HULDRICK KAMMER

Assistant Professor

JOHN W. KENDALL, JR.

Assistant Clinical Professors

KURT W. AUMANN

ERNEST T. LIVINGSTONE

Research Fellows

KENJIRO INOUE

PAVEL LANGER

HUGO STUDER

SHIN-ICHI SHIMODA

Research Assistants

CATHERINE FOWLER

YVONNE GRIMM

ANN STOTT

Gastroenterology

JOHN A. BENSON, JR., Head of Division

Associate Professors

JOHN A. BENSON, JR.

FREDERIC W. SMITH
(Veterans Hospital)

Associate Clinical Professor

GEORGE B. LONG

Assistant Clinical Professors

GEORGE A. BOYLSTON

JOHN J. KRYGIER

JOHN L. SOELLING

Clinical Associates

MARVIN C. GOLDMAN
THOMAS S. HEALY

LEWIS J. KRAKAUER

NORBERT E. MEDVED
HEYES PETERSON

Clinical Instructor

LEO J. FREIERMUTH

Fellow

JOHN H. ELLISON

DESCRIPTION OF COURSES

Research Assistant

LUCY C. STOUT

Hematology and Experimental Medicine

ROBERT D. KOLER, Head of Division

*Professors*ROBERT D. KOLER
EDWIN E. OSGOODDEMETRIOS A. RIGAS
(Experimental Medicine)

ARTHUR J. SEAMAN

Associate Professors

RICHARD T. JONES

BERNARD PIROFSKY

Assistant Professors

ROBERT H. BIGLEY

ROBERT D. GOLDMAN

RICHARD B. LYONS

Research Associates

JOHN H. BROOKE

MARIE L. DUERST

*Research Assistants*ANN AUGUST
PRENTISS HICKSJOHN McDERMED
KATHERINE PRATT
DOROTHY ST. HELENPATRICIA THOMPSON
VIRGINIA TISDALE**Immunology, Allergy, and Infectious Diseases**

FRANK PERLMAN, Head of Division

Associate Clinical Professor

FRANK PERLMAN

Assistant Clinical Professor

ROY R. MATTERI

GEORGE M. ROBINS

Clinical Associate

JOHN D. O'HOLLAREN

Clinical Instructors

GEORGE V. SQUIRE

GORDON T. WOLFE

Neurology

ROY L. SWANK, Head of Division

Professor

ROY L. SWANK

Clinical Professor

MERL L. MARGASON

Associate Professors

JAMES H. AUSTIN

JANICE R. STEVENS

Associate Clinical Professor

ROBERT S. DOW

Assistant Professors

C. CONRAD CARTER

JACK H. FELLMAN
(Neurochemistry)

LOUIS LINO

Instructors

THOMAS FUJITA

JOHN GORDON ROTH
(Primate Center)*Clinical Instructor*

ROY G. SNODGRASS

Research Associate

VICTOR MILSTEIN

Residents

PAUL W. JONES

HENRY E. STORINO

HUSSAIN M. SAJID

Rheumatology

DANIEL M. BACHMAN, Head of Division

Associate Professor

DANIEL M. BACHMAN

Associate Clinical Professor

EDWARD E. ROSENBAUM

Assistant Professor

ROBERT H. PERSELLIN

Assistant Clinical Professor

DAVID K. TAYLOR

Clinical Associate

ROBERT E. RINEHART

Clinical Instructor

PAUL O. KRETSCHMAR

Fellow

YOSHIO SHIMAZAKI

Research Assistant

BELLE DRAGOON

Dermatology

WALTER C. LOBITZ, JR., Head of Division

Professors

RICHARD L. DOBSON

WALTER C. LOBITZ, JR.

RAYMOND R. SUSKIND

Clinical Professors

LYLE B. KINGERY

LEON F. RAY

SHELDON A. WALKER

THOMAS S. SAUNDERS

Associate Professor

NICHOLAS NICOLAIDES

Associate Clinical Professors

FRANK W. CROWE

JOYLE DAHL

Assistant Professor

KENNETH M. HALPRIN

Assistant Clinical Professors

FREDERICK A. J. KINGERY

JOHN CLIFFTON MASSAR

Clinical Associates

BERNARD F. RYAN

JOHN M. SHAW

CHARLES W. WATKINS

Clinical Instructors

BRUCE R. CHENOWETH

DAVID C. FRISCH

ALBERT E. LARNER

CONRAD A. DELATEUR

WILLIAM J. HEMPILL

RALPH R. SULLIVAN

Research Associate

DORIS E. BROPHY

Research Assistants

MARY CAMPBELL

ELIZABETH HAINES

KATHE STRANGFELD

MARY LOU PEARSON

Fellows

GEORGE R. BROWN

ROBERT E. KELLUM

Residents

ROBERT F. BELL

WALTER G. LARSEN

CECIL SIGAL

JAMES A. CROSS

FRANKLIN PASS

STEPHEN SILVER

WILLIAM A. DODD

MARVIN R. YOUNG

Dental and Oral Medicine

HAROLD J. NOYES, Head of Division

Clinical Professor

HAROLD J. NOYES

*Clinical Associates*EUGENE O. KELLEY
DONALD F. KELLY
(Pedodontics)JAN J. MULLER
DONALD R. PORTER
NORMAN H. RICKLES
BHIM S. SAVARAEVELYN M. STRANGE
CECIL A. VAN KLEEK
WILBUR N. VAN ZILE*Clinical Instructors*ROBERT J. BRUCKNER
JOHN P. DICKSONJOHN S. GULLIKSON
JOHN PAUL JARABAKDUANE R. PAULSON
JAMES T. RULE**Internal Medicine****REQUIRED COURSES****SECOND YEAR****Med 612. Physical Diagnosis.** 3 hours each term, fall, winter, and spring.

Systematic lectures and demonstrations of the principles of history taking, physical examination, and the pathophysiological basis for physical signs. Lecture, 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.** 21½ 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. Toxicology and 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.

In the fourth year elective credit is given 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.

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. 1 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 con-

temporary 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. $\frac{1}{2}$ hour any term.

Students are 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.

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, symptomatology, and differential diagnosis. Lectures, 1 hour a week; 24 hours.

FOURTH YEAR

Derm 670. Dermatology Outpatient Clinic. $1\frac{1}{2}$ hours, one section each term.

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

Dental Medicine

REQUIRED COURSE

THIRD YEAR

DM 650. Dental Facial Growth and Oral Pathology. 1 hour spring.

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

SAMUEL IRWIN

JOSEPH D. MATARAZZO
(Medical Psychology)

GEORGE SASLOW

Clinical Professors

HERMAN A. DICKEL

HENRY H. DIXON

Associate Professor

ALBERT S. NORRIS

Associate Clinical Professors

CHARLES BRADLEY

JOHN L. BUTLER

CARL V. MORRISON

Assistant Professors

MICHAEL D. BAIRD
PAUL H. BLACHLY
JULIA S. BROWN
(Medical Sociology)

D. DUANE DENNEY
LENA KENIN

NANCY KOSTERLITZ
(Psychiatric
Social Worker)
IRA B. PAULEY

Assistant Clinical Professors

HANS F. FINK
N. B. JETMALANI

GERHARD B. HAUGEN
ROBERT L. MIGHELL
JAMES G. SHANKLIN

ROBERT E. TAUBMANN
EUGENE E. TAYLOR

Instructors

JACK R. HEGRENES
(Psychiatric Social Worker)

ARLEN QUAN

Clinical Instructors

THOMAS T. BENNETT
SIEGFRIED R. BERTHELSDORF
HENRY H. DIXON, JR.
G. GORDON ESSERT

GRANT B. HUGHES
DONALD MCKINLEY
SEYMOUR R. MOSS
C. RUSSELL PARKER
RICHARD H. PHILLIPS

WAYNE M. PIDGEON
ALLAN G. ROBERTS
WILLIAM W. THOMPSON
JOHN H. WATERMAN

Residents

DOUGLAS R. BOTTOMLY
JAMES J. BROPHY
MARY JANE DUBINSKI
GEORGE A. GOODMAN

RICHARD L. GRANT
LEONARD L. HESTON
RICHARD H. JOHNSON

DELBERT M. KOLE
W. E. OWENS
KENNETH GUY PALTROW
AGNAR A. STRAUMFJORD

REQUIRED COURSES

SECOND YEAR

Psy 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.

THIRD YEAR

Psy 615. Child Psychiatry. 1 hours 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.

Psy 630. Clinical Clerkship. 1½ 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

Psy 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

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

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

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

Radiology

CHARLES T. DOTTER, Chairman of Department

Professors

CHARLES T. DOTTER

LEE B. LUSTED
(Primate Center)

Clinical Professors

WILLIAM Y. BURTON

LOUIS H. FRISCHE

Associate Professors

JAMES B. HAWORTH

VINCENT C. HINCK

Associate Clinical Professor

KURT R. STRAUBE

Assistant Professor

MARCIA K. BILBAO

Assistant Professor of Radiologic Technology

HILDA E. DRUM

Assistant Clinical Professors

WAYNE G. ERICKSEN
ARTHUR F. HUNTER

JOHN WAYNE LOOMIS

JAMES R. RAINES
FRED C. SHIPPS

Clinical Associate

SHERMAN E. REES

Instructor

MELVIN JUDKINS

Clinical Instructors

JOHN L. HOWIESON
ROBERT S. MILLER
HARRY NEWMAN

GREGORY B. NICHOLS
ARTHUR L. OVREGAARD
GEORGE F. SATTERWHITE

WALTER R. STAHL
HANS G. WANDEL
GERALD L. WARNOCK

Residents

ERIC P. BENSON
DONALD W. BIDWELL
WELDE W. FREY

JOHN J. GALLUCCI
IRVING E. JOSLYN

JAMES E. MASSMAN
JOSEPH V. SCRIVANI
RICHARD ZAUVER

Radiotherapy

CLIFFORD V. ALLEN, Head of Division

Professors

CLIFFORD V. ALLEN

TYRA T. HUTCHENS
(Radioisotopes)

Associate Clinical Professors

SELMA HYMAN

J. ROBERT LEE

Assistant Professor

HARRY SHACH
(Radiation Physics)

Assistant Clinical Professor

MILTON D. HYMAN

Clinical Instructor

IRVING J. HOROWITZ

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.

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

ELTON KESSEL

THOMAS L. MEADOR

PETER J. BATTEN
F. SYDNEY HANSEN

SAMUEL B. OSGOOD

Environmental Medicine

RAYMOND R. SUSKIND, Head of Division

Professors

A. WESLEY HORTON

RAYMOND R. SUSKIND

Assistant Professor

PAUL A. VAN DREAL

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. 2 hours a week winter, 1 hour a week spring. 36 hours.

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

General Surgery

Professors Emeriti

WILLIAM K. LIVINGSTON

EUGENE W. ROCKEY

Professors

†CLARE G. PETERSON

*ROBERT A. WISE

Clinical Professors

JOHN C. ADAMS

ARTHUR C. JONES
(Physical Medicine)

MILLARD S. ROSENBLATT

Associate Professor

WILLIAM W. KRIPPBAEHNE

Associate Clinical Professors

ALLEN M. BOYDEN

CLIFFORD E. HARDWICK
MATTHEW MCKIRDIE

OLIVER M. NISBET

Assistant Professors

WILLIAM S. FLETCHER

STANLEY W. JACOB

R. MARK VETTO
(Veterans Hospital)

Assistant Clinical Professors

MARTIN A. HOWARD
RUSSELL L. JOHNSRUD

JOHN F. KANE
DONALD R. LAIRD
JOSEPH W. NADAL

JOHN P. TROMMALT
WERNER E. ZELLER

Clinical Associates

HARVEY W. BAKER
JOHN W. BASSETT
ADALBERT G. BETTMAN
DARRELL C. BOLLAM
JOHN G. P. CLELAND

ARCH DIACK
THOMAS J. FOX
WILLIAM M. GARNJOBST
JOHN M. GUISS
RUSSELL G. GUSTAVSON

ROBERT W. MARCUM
JOSEPH M. ROBERTS
DAN M. STEFFANOFF
EDWARD E. WAYSON
NATHANIEL D. WILSON

Instructors

JAMES CHANDLER
JAMES H. FOSTER
(Veterans Hospital)

†THOMAS K. HUNT

RALPH D. ROBERTSON
(Veterans Hospital)

Clinical Instructors

RICHARD P. ANDREWS
JACK E. BATTALIA
HARRY G. BECKWITH
FREDERIC H. BENTLEY
PAUL M. BROWN
NATHAN J. CAMPBELL
KEITH M. CLISBY
HUGH DONALD COLVER
PETER DEWITT
ZANLEY C. EDELSON
LESTER H. EISENDORF
GUY W. GORRELL
LEROY E. GROSHONG
J. GORDON GROUT
ROGER W. HALLIN

BERNARD P. HARPOLE
JOHN F. HAYES
TOSHIO INAHARA
RODERICK L. JOHNSON
REINHOLD KANZLER
GARY H. LEAVERTON
G. PRENTISS LEE
VERNER V. LINDGREN
RICHARD H. LINDQUIST
R. KENT MARKEE
WILLARD L. MATHIESON
DAVID B. MILLER, JR.
RAYMOND E. MOORE
(Physical Medicine)
H. MINOR NICHOLS
PHILIP F. PARSHLEY, JR.

ROBERT W. PATTON
IRVING PUZISS
DANIEL L. REED
MELVIN M. REEVES
WALTER C. REINER
EDWARD E. RIPPY
WILLIAM M. ROSENBAUM
WILLARD D. ROWLAND
NATHAN SHLIM
PHILIP A. SNEDECOR
EUGENE S. SULLIVAN
ROBERT H. TINKER
ALVIN O. UHLE
JAMES W. WILEY
GREGG D. WOOD

* On leave of absence, Advisor in Surgery, Faculty of Medicine, Chiangmai, Thailand.

† On leave of absence.

‡ On leave of absence July 15, 1964 to Nov. 15, 1964, visiting European medical centers.

Research Fellows

EDWARD G. CLEARY
KEVIN CRONIN

HARVEY B. ROSS

LAWRENCE B. SANDBERG
K. E. SABET-PAYMAN

Residents

WALTER F. ALEXANDER, JR.
WILLIAM C. AWE
RICHARD D. CHAPMAN
ROBERT C. DAVIS
DANIEL L. DENNIS
LATHAM FLANAGAN, JR.
THOMAS J. FOGARTY
STANLEY J. GOODMAN

KEITH F. HARCOURT
CURTIS L. HILL
ROBERT P. HODAM
JACK D. JEFFERSON
CHARLES C. JENKINS
RICHARD A. KINGSBURY
STUART W. LEAFSTEAD
WILLIAM McALLISTER

V. SCOTT PAGE
MACK D. RICHEY
KEITH A. ROBERTSON
RICHARD C. ROGERS
ALAN E. SHAPIRO
DONALD B. STARK
RONALD W. VINYARD
ROBERT L. WEBB

Anesthesiology

*FREDERICK P. HAUGEN, Head of Division

Professor

FREDERICK P. HAUGEN

Associate Professors

JOHN CLARENCE ROTH

REX J. UNDERWOOD

Assistant Professor

DAVID GOWING

Clinical Associate

ELLERY L. LANDERS

Instructor

BETTY B. THOMPSON

Clinical Instructors

JOHN O. BRANFORD
DONALD M. BRINTON
GENEVIEVE S. BURK

DONALD P. DOBSON
J. COLEMAN EDWARDS

JAMES V. HARBER
MARION E. PALMER
PAUL E. SCHAFF

Residents

STANLEY AUSTIN
JERRY J. BASS
CARL F. CHAPMAN

HARRY L. KEPPER
CHRISTINE L. MACKERT
MARILYN A. MICKEY

CHARLOTTE A. THOMSON
EDWARD H. WILSON
JOHN B. ZEVELY

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
(Veterans Hospital)

Clinical Associate

J. KARL POPPE

Instructor

RODNEY H. HERR

Clinical Instructors

CHARLES H. SPARKS

WILLIAM R. SWEETMAN

JAMES A. WOOD

Fellow

RICHARD G. SANDERSON

Resident

JOHN C. BIGELOW

* On leave of absence April 1, 1964 to August 1, 1964, visiting European medical centers.

DESCRIPTION OF COURSES

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

Clinical Associate

EDWARD K. KLOOS

Instructor

GEORGE W. SCHEMM

Clinical Instructors

JOHN P. DENNIS

RAY V. GREWE

HAROLD D. PAXTON

BRUCE N. KVERNLAND

Residents

RALPH F. KAMM

AL H. KUYKENDALL

MIAN MOHAMMAD TAHIR

JOEL L. SERES

Orthopedic Surgery

WILLIAM E. SNELL, Head of Division

Professors Emeriti

HARRY C. BLAIR

C. ELMER CARLSON

Associate Professor

WILLIAM E. SNELL

Associate Clinical Professors

ELDON G. CHUINARD

JOE B. DAVIS

FRANK B. SMITH

LAWRENCE NOALL

Assistant Professor

RODNEY K. BEALS

Assistant Clinical Professors

JOHN F. ABELE

RICHARD F. BERG

GURNEY A. KIMBERLEY

RODERICK E. BEGG

HAROLD E. DAVIS

DONALD B. SLOCUM

Clinical Associates

THOMAS J. BOYDEN

H. FREEMAN FITCH

ORVILLE N. JONES

PAUL CAMPBELL

JOSEPH H. GILL

LAURENCE R. LANGSTON

RAYMOND A. CASE, JR.

RICHARD J. HOPKINS

JAMES A. MASON

GEORGE W. COTTRELL

FAULKNER A. SHORT

Clinical Instructors

ROBERT E. BUCKMASTER

ROBERT J. FRY

ROBERT L. LARSON

WINFRED H. CLARKE

LOUIS P. GAMBEE

NORMAN D. LOGAN

HOWARD L. CHERRY

CALVIN E. GANTENBEIN

ROLLAND C. MERRIFIELD

LAURENCE J. COHEN

SAMUEL F. GILL

SAMUEL OSBORN

THOMAS A. EDWARDS

HARRY E. GROTH

ROBERT M. RANKIN

RICHARD P. EMBICK

JOHN HARDER

EDWIN G. ROBINSON

CHARLES A. FAGAN

CARL L. HOLM

RICHARD C. ZIMMERMAN

CALVIN H. KIEST

Residents

MICHAEL BASKIN

JOHN W. GILSDORF

GERALD T. LISAC

CHARLES A. BONNETT

HOWARD E. JOHNSON

RICHARD L. MERCER

MCGREGOR L. CHURCH

JAMES D. KUNZMAN

JOHN W. THOMPSON

ARTHUR L. ECKHARDT

FREDERICK D. WADE

Urology

CLARENCE V. HODGES, Head of Division

Professor

CLARENCE V. HODGES

Clinical Professor

JOHN R. HAND

Associate Clinical Professors

J. SCOTT GARDNER

THOMAS R. MONTGOMERY

Assistant Clinical Professors

THOMAS A. DAVIS

ROBERT B. HIGGINS

ROBERT J. MOORE

THEODORE H. LEHMAN

Clinical Associates

G. DONALD BEARDSLEY

CHARLES FERGUSON

ARNOLD RUSTIN

EMERSON J. COLLIER

ROBERT B. GREENE, JR.

JOHN G. VANDENBERG

CURTIS A. MACFARLANE

Instructor

JERRY D. GIESY

Clinical Instructors

CHARLES E. CATLOW, JR.

ROBERT L. KALEZ

DAVID P. PAULL

LUIS E. HALPERT

DIETRICH KIRCHHEIM

GERALD W. SCHWIEBINGR

Residents

LYALL CRARY, JR.

RUSSELL K. LAWSON

JOHN H. STONE

WILLIAM Y. DUNCAN III

ROBERT C. LOOMIS

GARY C. VAN GALDER

LELAND R. ELLIS

RUSSELL N. SACCO

JAMES K. VARNEY

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.** 20½ 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 operating-room 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 case-analysis 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 Clinic, 60 hours; General 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.** 16 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 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 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 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; Neurosurgery Clerkship, 74 hours; 344 hours. 368 hours.

ELECTIVE COURSES

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

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.

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.** $\frac{1}{2}$ 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.

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.

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 Emeritus

AUGUSTUS B. DYKMAN

Professor

KENNETH C. SWAN

Clinical Professor

E. MERLE TAYLOR

Associate Professors

ROBERT P. BURNS

LEONARD CHRISTENSEN

Assistant Professor

VIRGINIA L. WEIMAR

Assistant Clinical Professors

EDWARD N. MCLEAN

THOMAS E. TALBOT

ROBERT W. ZELLER

Associate

MARVIN C. HINES

Clinical Associates

PAUL F. BAILEY
ROBERT H. BEDROSSIAN

ROBERT E. FISCHER
ALFRED J. KREFT
GEORGE P. LYMAN

RICHARD E. MARKLEY
JOSEPH I. MORELAND

Visiting Instructor

ROBERT M. INGRAM

Instructor

K. NOLAN TANNER

Clinical Instructors

W. LEIGH CAMPBELL
ROBERT C. COWGER
DONALD W. DEERING

CLYDE H. DUVALL, JR.
WALTER R. ENDERS

RICHARD A. LALLI
PAUL J. ROBINSON
GERALD A. TERMAN

Residents

JAMES DELP
FREDERICK FRAUNFELDER
TERRY L. HANSEN

DONALD R. JOHNSON
ROBERT KALINA
SAM L. MEYER

ROBERT N. PAGE
JAMES A. SAUNDERS
HENRY J. L. VAN DYK

REQUIRED COURSES

THIRD YEAR

Eye 615. **Eye.** 1 hour fall.

Diseases of the eye and adnexa. Lectures, demonstrations, and quizzes. 1 hour a week; 12 hours.

FOURTH YEAR

Eye 650. **Eye.** 1 hour winter.

Ophthalmology in relation to systemic disease. Lectures, demonstrations, and quizzes. 1 hour a week; 12 hours.

Eye 670. **Fourth Year Eye.** 3 hours, 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. 37 hours a week for 2 weeks; 74 hours.

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

<i>Clinical Professors</i>		
PAUL BAILEY	GEORGE E. CHAMBERLAIN ROBERT M. HANSEN	LESTER T. JONES
<i>Assistant Professor</i>		
	ROBERT E. BRUMMETT	
<i>Assistant Clinical Professors</i>		
WILLIAM M. BOLTON LEWIS W. JORDAN	CLIFFORD KUHN DONALD C. METTLER PAUL B. MYERS	T. GLENN TEN EYCK BRUCE L. TITUS
<i>Clinical Associates</i>		
H. VICTOR ADIX		GEORGE C. SAUNDERS
<i>Clinical Instructors</i>		
OSCAR C. CHOWNING, JR. ROBERT R. COOPER JAMES D. DIXON (Audiology) BYRON L. FORTSCH	PATRICIA A. HAHN (Speech Correction) RICHARD A. HODGSON DONALD H. HOLDEN WARREN E. JOHNSON (Audiology)	DARRELL W. LANDREY ALEXANDER E. PETROFF ROBERT E. POTTER (Speech Pathology)
<i>Residents</i>		
LESTER L. BERGERON RUPERT O. BROCKMAN EDWIN C. EVERTS	DONALD H. HEITHECKER JAMES D. IMBRIE	EDWARD L. KORN RICHARD P. PANIAN ALEXANDER J. SCHLEUNIN

REQUIRED 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.** 3 hours, one section each term.

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 examinations, 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, 26 hours a week for 2 weeks; Outpatient Clinic, 11 hours a week for 2 weeks. 74 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).

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

*Associate Clinical Professors*CLIFFORD PEARL
GUNNAR E. C. NELSON

DUNCAN R. NEILSON

GOODRICH C. SCHAUFFLER
WILLIAM M. WILSON*Assistant Professor*

FRANK SHUBECK

*Assistant Clinical Professors*THEODORE M. BISCHOFF
RODERICK C. BLATCHFORD
MELVIN W. BREESE
W. RONALD FRAZIER
REMY W. FULSHERWILLIAM L. HARTMANN
DAVID W. JAMES
GERALD E. KINZEL
GEORGE H. LAGE
F. KEITH MARKEE
ALFRED N. MARSHALLJ. OPPIE MCCALL, JR.
MAX H. PARROTT
JESSE L. RAY
WILLIAM O. THOMAS
JAMES M. WHITELY

* On leave of absence Aug. 15, 1964 to March 21, 1965; representative of Population Council of New York to Latin America and visiting professor at the University of Buenos Aires, Argentina.

Instructor

JAHANARA TAHIR

*Clinical Instructors*RICHARD N. BOLTON
LE ROY S. CASPERSEN
CHARLES L. CHAVIGNY
C. LOUISE CLANCY
ENRIQUE M. DE CASTRO
JAMES W. FERGUS
RICHARD W. FRANKLINMALCOLM E. FULLER
ROBERT B. GREENE
GEORGE S. HARA
PHILIP H. HENDERSON, JR.
WILLIAM W. HICKS, JR.
ROBERT C. JACKSONBENJAMIN B. JONES
JOSEPH C. MITCHELL
DAVID W. MOORE
EDWARD N. PETERSON
QUINTEN SCHERMAN
ELIZABETH H. SCHIRMER*Residents*JACK W. BELL
RAYMOND S. CORWIN
PETER L. CRANDALL
KIRK E. EVANSMARK R. HANSCHKA
BLAINE L. HOSKINS
HARRY A. LEEBURTON W. NEWTON
MARTIN L. PERNOLL
HAROLD E. RAY
JACK M. SCHNEIDER II

REQUIRED COURSES

THIRD YEAR

Obs-Gyn 630. **Third-Year Obstetrics and Gynecology.** 10½ hours.

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, 18 hours a week for 6 weeks, manikin demonstrations, 2 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 YEAR

Obs-Gyn 670. **Fourth-Year Obstetrics and Gynecology.** 9½ hours.

Fourth-year students continue their study of obstetrics and gynecology 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 fol-

low 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 sections; 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.

Obs-Gyn 640. **Fetal Neonatal Death Conference.** ½ 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.

Pediatrics

RICHARD W. OLMSTED, Chairman of Department

Professors

HEROLD S. LILLYWHITE
(Speech Pathology)

RICHARD W. OLMSTED

RICHARD L. SLEETER

Clinical Professor

JOSEPH B. BILDERBACK

Associate Professors

S. GORHAM BABSON
WILLIAM M. CLARK, JR.

*GEORGE W. DANA
RUDOLPH C. H. ENGEL
JOHN B. ISOM

MARTIN H. LEES
L. PAUL RASMUSSEN

Associate Clinical Professors

MORRIS L. BRIDGEMAN

SCOTT GOODNIGHT

ALVIN D. WERT

Assistant Professors

†ROBERT W. BLAKELEY
(Speech Pathology)
ROBERT A. CAMPBELL
LEROY O. CARLSON

KATHRINE S. FRENCH
(Anthropology)
HARVEY D. KLEIRT
ROBERT J. MEECHAN

VICTOR D. MENASHE
WILLIAM W. ORNDUFF
NORTON B. YOUNG
(Audiology)

Assistant Clinical Professors

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

JOSEPH T. HART
EDWARD L. HENDRICKS
PETER L. HURST
JOHN A. LARRABEE
DAVID W. MACFARLANE
JOHN ARTHUR MAY
GEORGE A. NASH
EDGAR M. RECTOR

GEORGE J. SCHUNK
LONDON H. SMITH
JOHN L. STEVENSON
CLEMENS W. VAN ROOY
CHARLES VARGA
GEORGE F. WALLIKER
JAMES P. WHITTEMORE

Instructors

WILMA L. CARSON

WARREN H. FAY
(Speech Pathology)

ROBERT S. MURRAY
(Speech Pathology)

Clinical Instructors

JOHN R. BERRY
HENRY L. BOEHNKE
ALLEN K. CHAPPELL
W. ROBERT DAY
MORTON G. ELEFF
LYND L. FOLTS

WILLIAM E. HILL
FRANK M. JACOBSON
DONALD F. KELLY
ARTHUR D. KRACKE
LOUIS R. MCKAEL
OLIVER H. MASSENGALE

HARRY C. MORSE
MARILYN A. NELSON
GEORGE S. SMITH
WILLIAM M. SNOOK
JOHN H. SPRINGER
ROBERT E. THORNFELDT

* On leave of absence July 1, 1964 to June 30, 1965; trainee in hematology at Children's Medical Center, Boston.

† On leave of absence Dec. 1, 1964 to Apr. 1, 1965, studying normal and abnormal palatopharyngeal function.

Residents

CALVIN C. CLARK
JOHN M. GEVURTZ
HOOSHANG HATEFI
ELSA JACINTO
JOSEPH P. KLEIN

PETER K. F. LO
LOUIS L. MURDOCK
BERT T. REED
ROBERT A. SEIVERT
JOHN C. SELVER

JANET M. STEWART
HAVELOCK THOMPSON
EMILY TUFTS
NED J. WHITCOMB
ELDON W. YOUNGER

REQUIRED COURSES**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 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.** ½ 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).

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.

Dismissal

A graduate student may be dropped at any time for failure to maintain academic or professional standards or because of moral delinquency or physical incapacity.

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 department and the Graduate Council. The thesis must be submitted to 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 66.

Additional information on graduate programs may be obtained from the Graduate Studies Catalog.

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 32) 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 study 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, Multnomah 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. Medical-surgical experience is also provided at Physicians and Surgeons Hospital, Portland.

(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 97201.

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

THE DEPARTMENT OF RADIOLOGY of the University of Oregon Medical School offers a two-year course of training for radiologic technologists. 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 darkroom 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 program meets the requirements of the American Registry of X-Ray Technicians and includes the examination for registration.

Medical Technology

TYRA T. HUTCHENS, Director of Medical Technology Program

Professor

TYRA T. HUTCHENS

Associate Clinical Professors

HOMER H. HARRIS

JAMES H. LIUM

Assistant Professors

JAMES L. BRAMHALL

MARTHA L. HAMILTON

GERALD J. LATTIG

Assistant Clinical Professors

EUGENE W. LANDRETH

ALBERT A. OYAMA

Instructors

MARY E. BAPTIST

JOHN D. KOONTZ

Clinical Instructors

DAVID J. BROWN

NIGEL A. PICKERING

DAVID S. TAKALO

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; 24 term hours of chemistry, including one full academic year of a general college chemistry course, with lectures and laboratory; and one term of college mathematics. It is strongly recommended that a course in physics be included in the student's college preparation. The three years of

prerequisite work may be done in any accredited college; the applicant's credentials must be approved by the Registry prior to admission.

Textbooks and uniforms are supplied by the student. There are a limited number of dormitory rooms for women; application may be made through the Department of Clinical Pathology.

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 medical technology who are residents of Oregon pay a fee of \$114.00 a term; nonresident students pay a fee of \$204.00 a term.

Medical technology students pay the "special fees" listed on page 66 under the conditions indicated.

Curriculum in Medical Technology

Fall Term		Term hours
MT 410. Clinical Bacteriology		4
MT 413. Laboratory Orientation		2
MT 424. Clinical Biochemistry		5
MT 430. Principles of Hematology		5
†CP 520. Radioisotope Technique		1
		17
Winter Term		
MT 411. Clinical Bacteriology		6
MT 425. Clinical Biochemistry		6
MT 431. Special Hematology		3
†CP 521. Radioisotope Technique		1
		16
Spring Term		
MT 414. Urinalysis		4
MT 420. Histological Technique		4
MT 436. Applied Serology		5
MT 437. Clinical Parasitology		3
†CP 522. Radioisotope Laboratory		1
		17

* 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 the University of Oregon Catalog for specific courses that meet the literature requirement.

† See page 76.

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.

Enrollment and Degrees

Degrees Conferred June 12, 1964

Doctor of Medicine

GRADUATE

John Edward Abbott.....U. S. Naval Hospital, Camp Pendleton, Calif.
Robert LeRoy Acker.....Hartford Hospital, Hartford, Conn.
Ernest Phelps Aebi.....Letterman General Hospital, San Francisco, Calif.
John Noël Anderson.....Mary Hitchcock Memorial Hospital, Hanover, N. H.
John Ove Bergstrom.....University of Oregon Medical School Hospitals and Clinics,
Portland, Ore.

Elroy D. Brandt.....Fresno County General Hospital, Fresno, Calif.
Larry Thomas Brice.....Bellevue Hospital Center, Second Medical Division,
Cornell University, New York City, N. Y.

Robert Oras Burgess.....Weld County General Hospital, Greeley, Colo.
Harold Treat Cafferata.....University of California Hospitals, San Francisco, Calif.
Timothy Joseph Campbell.....University of Oregon Medical School Hospitals and Clinics,
Portland, Ore.

James Joseph Cereghino.....Good Samaritan Hospital, Portland, Ore.

Charles King Chapman.....U. S. Naval Hospital, Oakland, Calif.

Maurice Joseph Comeau.....Mary Hitchcock Memorial Hospital, Hanover, N. H.

John Stadler Corson.....U. S. Air Force Hospital Travis, Fairfield, Calif.

William Wallace Cox.....Good Samaritan Hospital, Portland, Ore.

Eric William Scott Craig.....San Joaquin General Hospital, Stockton, Calif.

Sally Hope Davidson.....Milwaukee County Hospital, Milwaukee, Wis.

Robert Dunlap Davis.....Philadelphia General Hospital, Philadelphia, Penn.

Curwood L. Davison.....Bernalillo County-Indian Hospital, Albuquerque, N. M.

Carl Marion Deming.....U. S. Air Force Hospital Scott, Belleville, Ill.

Eddie Joe Droge.....Maricopa County General Hospital, Phoenix, Ariz.

John Echevarria.....U. S. Air Force Hospital Travis, Fairfield, Calif.

Harold Martin Erickson, Jr.....Emanuel Hospital, Portland, Ore.

David Norman Gilbert.....Minneapolis General Hospital, Minneapolis, Minn.

Eugene Wilbert Goertzen.....Tripler General Hospital, Honolulu, Hawaii

Scott Hamilton Goodnight, Jr.....Minneapolis General Hospital, Minneapolis, Minn.

James Lee Griggs.....Sacramento County Hospital, Sacramento, Calif.

Edward Allen Grossenbacher.....Milwaukee County Hospital, Milwaukee, Wis.

Rodger Gilman Hawkins.....Fresno County General Hospital, Fresno, Calif.

Howard Hale Henson.....U. S. Naval Hospital, Philadelphia, Penn.

John Charles Hill.....Fitzsimons General Hospital, Denver, Colo.

Thomas Carl Honl.....University of Oregon Medical School Hospitals and Clinics,
Portland, Ore.

John Carter Hylen.....Hospital of University of Pennsylvania, Philadelphia, Penn.

Robert Charles Koch.....Emanuel Hospital, Portland, Ore.

Marshall Lynn Koonce.....Baptist Memorial Hospital, Memphis, Tenn.

Kevin Bruce Lake.....Marion County General Hospital, Indianapolis, Ind.

William Richard Lee.....Santa Clara County Hospital, San Jose, Calif.

Willard Ray Lilly.....Martin Army Hospital, Fort Benning, Ga.

Ralph Verlin Litchfield.....Marion County General Hospital, Indianapolis, Ind.

George Murray Maskell.....Providence Hospital, Portland, Ore.

Martin Emil McKenney.....U. S. Naval Hospital, Camp Pendleton, Calif.

Donald LeRoy Meyer.....Palo Alto-Stanford Hospital Center, Palo Alto, Calif.

Donald Saier Minckler.....U. S. Naval Hospital, San Diego, Calif.

Daniel W. Nebert.....University of California Hospital, Los Angeles, Calif.

Larry Earl Noble.....Latter-Day Saints Hospital, Salt Lake City, Utah

Thomas Edward Olsen.....Santa Clara County Hospital, San Jose, Calif.

Clyde Milton Quam.....Emanuel Hospital, Portland, Ore.

Delbert Lee Remy.....U. S. Naval Hospital, Charleston, S. C.

George Himes Rice.....Cincinnati General Hospital, Cincinnati, Ohio

David William Rich.....Milwaukee County Hospital, Milwaukee, Wis.

Donald Foley Richey.....Milwaukee County Hospital, Milwaukee, Wis.

John Stephen Schaub.....San Bernardino County Charity Hospital, San Bernardino, Calif.

Donald Harlan See.....Fitzsimons General Hospital, Denver, Colo.

Larry John Severson.....U. S. Naval Hospital, San Diego, Calif.

Jon Angus Shaw.....Letterman General Hospital, San Francisco, Calif.

George Shimomura.....San Joaquin General Hospital, Stockton, Calif.

Edward Harlan Stark.....Minneapolis General Hospital, Minneapolis, Minn.

INTERNSHIP

William Charles Stone.....	U. S. Naval Hospital, Great Lakes, Ill.
Calvin T. Tanabe.....	Barnes Hospital, St. Louis, Mo.
Banchert Tantivit.....	San Joaquin General Hospital, Stockton, Calif.
Per Helge Tonning.....	San Joaquin General Hospital, Stockton, Calif.
Raul A. Vernal.....	St. Vincent's Hospital of the City of New York, New York City, N. Y.
Robert O. Voy.....	Madigan General Hospital, Tacoma, Wash.
Donald E. Wadsworth.....	U. S. Naval Hospital, Camp Pendleton, Calif.
N. Dean Weaver.....	Albany Medical Center, Albany, N. Y.
Jacob Hayes Wilson.....	U. S. Air Force Hospital Travis, Fairfield, Calif.
Stuart Dudley Wilson.....	Walter Reed General Hospital, Washington, D.C.
William Slate Wilson.....	Presbyterian Hospital, New York City, N. Y.
Albert Winkler, Jr.....	Emanuel Hospital, Portland, Ore.
Laurence John Wiwatowski.....	Mary Hitchcock Memorial Hospital, Hanover, N. H.
John L. Wobig.....	Emanuel Hospital, Portland, Ore.

Doctor of Philosophy

Rose Mary Bocek

Arthur Darrol Bond
Robert Eddie Brummett

Leonard T. Sigell

Master of Science

Larry Thomas Brice
Robert Edmond Brooks
Rolf Richard Engel

Daniel W. Nebert
Mohammed Rafiullah
Jon Angus Shaw
Calvin T. Tanabe

Raul A. Vernal
Stuart Dudley Wilson
William Slate Wilson

Enrollment 1963-64

Medical Students

First-Year Class

Dan D. Abbott
John P. Allen
Michael A. Azorr
Lowell R. Beal
Bruce D. Bingham
Casey D. Blitt
Daniel F. Brown
Mary P. Brown
Thomas E. Brugger
William H. Bush, Jr.
Charles L. Cambron
David M. Cammack
James A. Campbell
Michael S. Campbell
Gary V. Dahl
DeWayne E. Ditto
George M. Douglass
Samuel R. East
Gareth A. Eberle
John D. Ehrhart
Frederick C. Felter
Annelore H. Fontane
Michael L. Fritz
Douglas W. Graham
Joyce Y. Gummerson
Robert M. Hakala
Dave R. Hale

Robert J. Hehn
John H. Hodgers
David G. Hooper
Mike C. Huntington
Gary A. Jacobsen
Howard L. Johnson
Grant D. Lawton
Paul Y. Lee
Richard W. Lehfeldt
James Y. Liu
Curtice T. Martin
Lawrence C. Mason
Phil A. Mathias
Richard W. McDuffie, Jr.
Joseph R. McFarland
Earl M. Miller
Kathleen A. Milne
Ernst W. Muller
Michael N. Nichols
Raymond R. North
Gary S. Okino
Delbert P. Pearson
James R. Pitts
William J. Prendergast III
Daniel D. Roberts
Paul W. Roberts
Gregory K. Roduner

Robert L. Sack
Waldemar A. Schmidt IV
Harold C. Sexton
Earl G. Sherod
Paul D. Shields
O. Carl Simonton, Jr.
Stanley Soho
Kevin J. Sullivan
Douglas A. Thompson
Jeffrey D. Thompson
Richard B. Thompson
Stewart Tuft, Jr.
George N. Vigeland, Jr.
Don Wade
David Wagner
Harry L. Walters
James D. Watson
Richard G. Weleber
Steven L. Wilhite
James R. Willcox
Neil R. Williamson
David D. Wirtschaffer
Lynn K. Wittwer
Richard L. Worthington
Terry Yamauchi
Arthur F. Zbinden
John W. Zell

Second-Year Class

John H. Affleck
Dean B. Barnhouse
Edward J. Barrett
Anthony C. Billings
Robert H. Bridenbaugh

Merle F. Bruce
James W. Budke
James S. Burns
William I. Calhoun
Michael S. N. Chun

Furm M. Duncan
Larry R. Eidemiller
Margaret E. Elfering
Richard A. Ellerby
Robert W. Emmens

Gerald I. Erickson
John N. Fax, Jr.
Nancy C. Fax
Douglas P. Fisk
James H. Fontaine
Thomas W. Friedland
Donald W. Froom
John E. Gambee
David A. Haaland
Garron R. Hale
Roy E. Hall
Mark T. Hattenhauer
Edward W. Hearn
Ralph W. Higer
Allan J. Hill III
Larry W. Hirons
Sharon M. Horn
Robert B. Hubbard
Errett E. Hummel
Theodore L. Imel
William C. Johnson
Clyde B. Kernek

Kenneth S. Keyes
Allen P. Kibbey
David Y. Kimura
Robert S. Kinoshita
Richard G. Lemery
Carole V. Maxwell
Kenneth M. May
Terrance J. McDowell
Colan M. McKinnon, Jr.
Dayton S. Misfeldt
Calvin Y. Nakao
Michael E. Nishitani
John R. Obye
David C. Oehling
Neil J. O'Keefe
Gerald W. Olmsted
Michael G. O'Mara
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
J. 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 H. Wesche
David W. Wilder
John W. Wilson

Third-Year Class

Irshad A. Ahmad
Jerald E. Albrich
John G. Apostol
Peter W. Bergreen
Margaret G. Bischel
C. Carter Boggs
William Y. Burton, Jr.
Phyllis M. Cavens
Travis R. Cavens
Jack F. Chan
Robert G. Chuinard
Gorden L. Clark
Beverley A. Cleland
Jerry C. Crooks
Donald A. Duncan
David L. Dixon
Peter J. Dowsett
Robert Eastwood
Jack H. Eberhart
James D. Pearl
Jerry J. Fisher
Edward G. Foxley, Jr.
Thomas J. Franz
R. Eugene Giesbrecht
Lester S. Goldstein
Jerry Goldstone
John B. Hardiman
Meredith K. Hester
Chin S. Hoo

Keith R. Hooker
W. Breck Howard
Stanley J. Huber
Robert D. Jackman
Stephen M. Jackson
W. David Jones
Russell J. Keizer
Robert K. Koida
E. Louise Kremkau
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
James E. O'Dea
David G. Paff
Edward T. Paget
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. Shiningier
James J. Simerville
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
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.
Paul D. Young

Fourth-Year Class

John E. Abbott
Robert L. Acker
Ernest P. Aebi
John N. Anderson
Donald F. Austin
John O. Bergstrom
Elroy D. Brandt
Larry T. Brice
Robert O. Burgess
H. Treat Cafferata
Timothy J. Campbell
James J. Cereghino
Charles K. Chapman
Maurice J. Comeau
John S. Corson
William W. Cox

Eric W. S. Craig
S. Hope Davidson
Robert D. Davis
Curwood L. Davison
Carl M. Deming
Eddie J. Droge
John Echevarria
Harold Erickson
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

John C. Hill
Thomas C. Honl
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
Larry E. Noble

Thomas E. Olsen
C. Milton Quam
John B. Quick, Jr.
Delbert L. Remy
George H. Rice
David W. Rich
Donald F. Richey
J. Stephen Schaub
Donald H. See
Larry J. Severson

John Shaw
George Shimomura
Edward H. Stark
Gary M. Stewart
William C. Stone
Calvin Tanake
Banchert Tantivit
Per H. Tønning
Raul Vernal
Robert O. Voy

Donald E. Wadsworth
N. Dean Weaver
Jacob H. Wilson
Stuart D. Wilson
William S. Wilson
Albert Winkler, Jr.
Laurence J. Wiwatowski
John L. Wobig

Graduate Students

Linda Allison
Rose Mary Boeck
Robert E. Brooks
Robert E. Brummett
Stuart L. Bunch
Grayson L. Capp
Hugh E. Casey
Richard A. Cheu
Reid S. Connell
Howard W. Davis
Harvey H. Feder
R. Wayne Fields
Mary Jo Florey
David Gaudin
Finley P. Gibbs

Thelma H. Golden
Dennis C. Gould
William L. Heinrichs
Michael Henry
Susan V. Hunter
Edward A. Johnson
Ralph J. Kalinowski
Al H. Kuykendall
Jon W. Lindsay
Cole V. Mason
Jack A. Mattice
Donald A. McAfee
Thomas A. McKean
Paul McMahl
Neil J. Moir
Carolyn Moll

Derek Myhill
Walter A. Petersen
Mohammed Rafiullah
James D. Rankin
Lawrence Sandberg
Linda Schoenbeck
Linda L. Shockey
Leonard T. Sigell
Constance M. Simo
Allen A. Smith
Colene A. Walden
Ernest A. Waterman
Michael R. Waterman
William J. Weaver
David T. Wong

Specials and Auditors

Murray Bartley
Wilbur Bower
Buckner Burch

Polly Cheadle
Maurice Cowan
F.A. Diaz-Garcia
Barbara Jones

Jerrold Larson
David Maas
Katherine Pratt

Medical Technology Students

Carole Amell
Dennis L. Bailly
*Herb A. Blake
Jacqueline O. Bour
Jeannie A. Brown
Glendel R. Campbell
Peggy Louise Chinn
*Howard L. Davis
Marcia Jo Dill
Catherine J. Fowler
Pamela H. Fukuda
Kerry C. Gatherer
Deanna A. Haynes

*Joan G. Heiserman
Mary Ellen Hough
Frankie Joan Houston
Janice Rae Kellogg
Cecilia M. Kivei
Sharon L. Laing
Barbara L. Lang
Janet E. Leslie
*Eloise A. Marhenke
*Lynn R. McLain
Patricia L. Miles
Marodean L. Miller
Connie Flora Mitchell

Sandra Jo Nash
*Sharon L. Nelson
Linda J. Nims
James E. Perse
Edna P. Poole
Sherrill M. Powers
Marilyn L. Runkle
*James L. Sandoz
*Donna L. Shue
Joan M. Welby
Carolyn Westlund
Charlene Williams

* Auditors.

Summary of Enrollment, 1963-64

	Men	Women	Total
First year	77	4	81
Second year	75	6	81
Third year	83	4	87
Fourth year	75	1	76
Total regular students	310	15	325
Graduate students	36	10	46
Special students and auditors	7	3	10
Medical technology students	5	33	38
Total	358	61	419