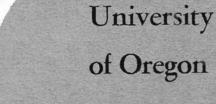
CATALOG ISSUE 1958-59



MEDICAL SCHOOL

PORTLAND, OREGON

UNIVERSITY OF OREGON



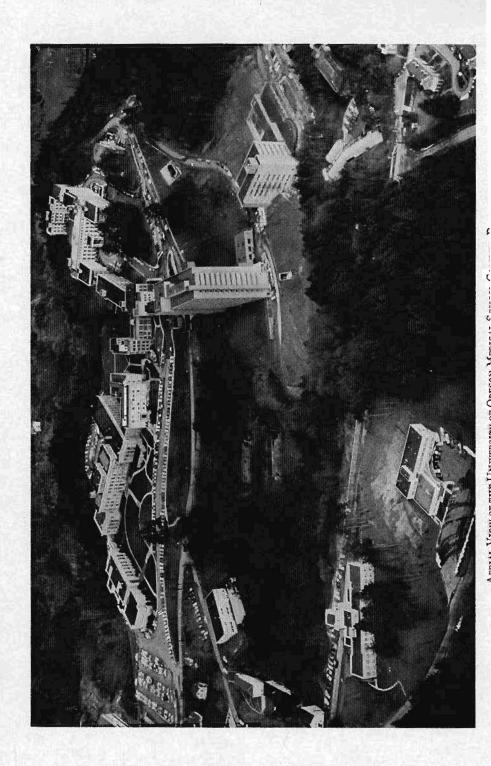
OREGON STATE SYSTEM OF HIGHER EDUCATION

UNIVERSITY OF OREGON BULLETIN

NUMBER 72

AUGUST 1958

Entered as second-class matter, January 18, 1950, at the post office at Eugene, Oregon, under act of August 24, 1912. Issued nine times a year, in January, March, April, May (two numbers), June, July, August, and November. Published by the Oregon State Board of Higher Education, at the University of Oregon, Eugene, Oregon.



UNIVERSITY OF OREGON MEDICAL SCHOOL

1958-59 CATALOG

PORTLAND, OREGON

UNIVERSITY OF OREGON MEDICAL SCHOOL

1958-59 CATALOG

PORTLAND, OREGON

Table of Contents

or and the second secon	ı agc	1
Oregon State System of Higher Education	ī5	j
STATE BOARD OF HIGHER EDUCATION	6	j
Administrative Officers, State System		r
Medical School Calendar, 1958-59	<u></u> 8	;
General Information	9)
History	9)
Physical Facilities		
Philosophy and Objectives		
Accreditation	12	?
Administration and Faculty	12	•
Instruction	12	?
Research	13	ţ
Student Organizations	13	ţ
Social Activities and Athletics	14	ļ
Housing	14	ļ
Student Health Service		
Fellowships, Scholarships, Prizes, Loan 1		
Alumni Association		,
Academic Requirements and Regulations.	18	3
Admission Requirements		
Processing of Applications	20)
Fees and Expenses		
Scholastic Regulations		
Curriculum in Medicine	26	5
DESCRIPTION OF COURSES		
Course-Numbering System	30)
Basic Science Departments	30)
Anatomy	30)
Bacteriology	31	l
Biochemistry	32	2
Clinical Pathology	32	2
Pathology	33	3
Pharmacology	34	ļ
Physiology	34	ļ
Clinical Departments	35	5
Medicine		
Internal Medicine	35	5
_	37	
Dental Medicine	37	1

DESCRIPTION OF COURSES (continued) Clinical Departments (continued) Radiology 38 Surgery 39 General Surgery 39 Urology 41 Anesthesiology 41 Neurosurgery 42 Gynecology 44 Pediatrics 44 Internship and Residency Programs 47 Hospital Dietetics 49

Oregon State System of Higher Education

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

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

Each of the institutions provides the general studies fundamental to a well-rounded education. At Oregon College of Education, Southern Oregon College, Eastern Oregon College, and Portland State College, students may complete major work in teacher education or in general studies or may enroll in preprofessional programs.

At the University of Oregon and Oregon State College two years of unspecialized work in liberal arts and sciences are provided on a parallel basis in the lower division. Major curricula, both liberal and professional, are grouped on either campus in accordance with the distinctive functions of the respective institutions in the unified Oregon State System of Higher Education.

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

State Board of Higher Education

	Term xpires
R. E. Kleinsorge, Silverton	1959
WILLIAM E. WALSH, Coos Bay	1959
HENRY F. CABELL, Portland	1960
CHARLES HOLLOWAY, JR., Portland	1961
A. S. Grant, Baker	1962
CHERYL S. MACNAUGHTON, Portland	1963
J. W. Forrester, Jr., Pendleton	1963
Allan Hart, Portland	1964
Douglas McKean, Beaverton	1964
Officers	
R. E. KLEINSORGEPres	ident
HENRY F. CABELL Vice-Pres	sident
WILLIAM E. WALSH Member Executive Comp	nittee

JOHN R. RICHARDS, Ph.D., Chancellor EARL M. PALLETT, Ph.D., 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

JOHN R. RICHARDS, Ph.D., Chancellor

O. MEREDITH WILSON, Ph.D. President, University of Oregon

August L. Strand, Ph.D. President, Oregon State College

DAVID W. E. BAIRD, M.D., LL.D. ELMO N. STEVENSON, Ed.D. President, Southern Oregon College

HAROLD J. NOYES, D.D.S., M.D. Dean, Dental School

Frank B. Bennett, Ed.D. President, Eastern Oregon College

*John F. Cramer, D.Ed. President, Portland State College

Roy E. Lieuallen, Ed.D. President, Oregon College of Education

JAMES W. SHERBURNE, Ph.D. Dean, General Extension Division

HEBRERT A. BORK, M.S., C.P.AComptroller and Bursar
RICHARD L. COLLINS, M.A., C.P.ABudget Director
EARL M. PALLETT, Ph.DSecretary, Board of Higher Education
WILLIAM H. CARLSON, M.ADirector of Libraries
Francis B. Nickerson, M.SExecutive Secretary, High School-College Relations Committee
WOLF D. VON OTTERSTEDT, LL.BAssistant Attorney General, assigned to Board Office

Former Chancellors Oregon State System of Higher Education

WILLIAM J. KERR, D.Sc., LL.D	.1932-1935
Frederick M. Hunter, Ed.D., LL.D.	1935-1946
Paul C. Packer, Ph.D., LL.D.	1946-1950
CHARLES D. BYRNE, Ed.D.	1950-1955

^{*} Resigned August 1, 1958.

University of Oregon Medical School Calendar, 1958-59

Fall Term, 1958-59	
September 15, MondayRegistr	ration
September 16, TuesdayInstruction 1	egins
September 29, MondayLast day to register for full or to change co	
November 27, ThursdayThanksgiving Day, he	oliday
December 6, SaturdayFall term	ends
Winter Term, 1958-59	
December 8, MondayInstruction 1	egins
December 20, SaturdayLast day to register for full or to change co	credit ourses
December 22, to January 3, 1959Christmas vac	
March 14, SaturdayWinter term	ends
Spring Term, 1958-59	
March 23, MondayInstruction b	egins
April 6, MondayLast day to register for full or to change co	credit ourses
May 30, SaturdayMemorial Day, he	oliday
June 12, FridayCommenc	ement
June 13, SaturdaySpring term	ends
Summer Term, 1959 (Graduate Students)	
June 15, Monday Regist	ration
June 15, MondayInstruction 1	egins
June 29, MondayLast day to register for full or to change co	ourses
July 4, SaturdayIndependence Day, he	oliday
September 5, SaturdaySummer term	ends

General Information

THE UNIVERSITY OF OREGON MEDICAL SCHOOL is located in Portland (population 412,100), 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, when they graduated, 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 108-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 \$20,000,000, 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. Over 140,000 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 310 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 contractural arrangement between the commissioners of Multnomah County and the Oregon State Board of Higher Education, the Medical School has access to the hospital for teaching purposes, and the professional staff of the hospital is appointed by the Medical School. This arrangement provides a most successful affiliation for teaching, research and care of the sick.

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

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

The Medical School Library, with stacks providing shelving space for 100,000 volumes, which may be expanded to accommodate an additional 100,000 volumes, contains more than 64,000 volumes of books and bound periodicals, as well as a large number of unbound periodicals. Approximately 1,300 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 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 in a printed list in the annual Commencement program.

Entering students are given a survey of the resources of the Library and instruction in their use.

The Nurses' Dormitory (1943), formerly the Portland Medical Hospital, was purchased in 1943 to provide needed housing facilities for students in the Department of Nursing Education. This dormitory accommodates 95 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.

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 272-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, 31 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.

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 the 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 82 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 47). 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 twenty-five 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 107 full-time faculty members serving in its basic and clinical science departments; and more than 450 clinical faculty members who practice in Portland and the surrounding area 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 the division of medical psychology—is open to a few selected students each year. A student enters the five-year program after completing the first two years of medicine, and then pursues a combined course of medical and graduate studies. Such students spend three summers and a part of the regular academic years in graduate study. This program affords an unparalleled opportunity for review and consolidation of basic science concepts at a time when the student has had sufficient clinical training to enable him better to appreciate the importance

of the basic sciences in relation to clinical medicine. It provides research experience and advanced basic science training desirable for students expecting to enter medical research and teaching as a career and a superior scientific background for clinical medicine.

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

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

A Department of Nursing Education is an important part of the Medical School's instructional program. Courses in medical technology and X-ray technique and clinical affiliations in dietetics and occupational therapy also are offered. Each year the Medical School conducts an extensive postgraduate program for physicians of the states of the Pacific Northwest, British Columbia, and Alaska. (see also pages 48-49, Special Programs).

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 underway at the Medical School are supported by gifts and grants amounting to more than \$1,000,000 annually. These funds are made available by private individuals and industry, by foundations and societies, and by the state and Federal governments.

Currently, over 100 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.

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, and 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 stand-

ards 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. Alpha Kappa Kappa and Phi Beta Pi maintain "houses" which provide living quarters for members.

Alpha Epsilon Iota, medical fraternity for women has a chapter on the campus but no housing facilities.

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 each week and social gatherings once a month. Students of any religious persuasion are invited to attend these meetings.

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

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

Social Activities and Athletics

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

All students have access to Portland's metropolitan cultural advantages, and may follow their religious preference by attending any of Portland's many churches.

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, the school has a fine basketball team, supported by the Alumni Association, which plays in the Portland Metropolitan Basketball League. Students may also participate in an intramural sports program.

Housing

WHILE NO FACILITIES FOR HOUSING students are provided by the Medical School, many apartments and boarding houses are located close to the campus. In addition, the Alpha Kappa Kappa and Phi Beta Pi fraternities maintain housing for their members. An up-to-date list of vacancies in apartments and boarding houses is maintained in the Registrar's Office.

Student Health Service

A STUDENT HEALTH SERVICE, maintained by the Medical School, provides care for acute diseases and is available for counselling. 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 of \$10.00 for the term. 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.

Fellowships, Scholarships, Prizes, Loan Funds

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.

Lederle Medical Student Research Fellowships. The Lederle Laboratories Division of the American Cyanamid Company provides fellowships for outstanding students for research in the basic sciences. The annual grant from the Lederle Laboratories is \$1,200, to be distributed among not more than three students. Further information may be obtained in the office of the dean.

National Foundation for Infantile Paralysis Fellowships. Fellowships for medical students are provided each year by the National Foundation for Infantile Paralysis. Fellowships are available in each of the following fields: research in the biological and physical sciences related to medicine, physical medicine and rehabilitation, and public health and preventive medicine. Each grant is for \$600 for research during the summer vacation period. Further information may be obtained in the office of the dean.

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 head of the department concerned prior to April 1 preceding the summer for which the fellowship is to be awarded.

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 head 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 47, 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 \$5000 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 \$33,000. 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. Application should filed with the office of the dean of the Medical School not later than March 1. Scholarships are awarded by the dean upon the recommendation of the Scholarship Committee of the Medical School.

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. Award of state scholarships to students at the Medical School is made upon recommendation of the dean and the Scholarship Committee of the Medical School. Application should be filed in the office of the dean of the Medical School not later than March 1.

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. Application should be filed in the office of the dean of the Medical School not later than, March 1. Scholarships are awarded by the dean upon the recommendation of the Scholarship Committee of the Medical School.

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 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. Lawrence Selling and the Trust Department of the First National Bank of Portland.

- 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 \$800.

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.

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 2,500. In the spring of each year, the Alumni Association sponsors a three-day scientific meeting on the Medical School campus with about 400 registrations. Alumni Association officers for 1958-59 are:

Dr. John F. Larsell, Portland	President
Dr. Arthur W. Sullivan, Portland	Vice President
Dr. M. Irene Grieve, Spokane, Wash	Vice President
Dr. Paul G. Hafner, Longview, Wash	Vice President
DR. KEITH P. RUSSELL, Los Angeles, Calif	Vice President
Dr. Robert L. Schaeffer, Walla Walla, Wash	Vice President
Dr. Faulkner A. Short, Portland	Secretary
Dr. Joseph E. Nohlgren, Portland	Treasurer

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 suits a person for medicine, the best advice for a student planning to prepare himself for medical school is that he 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 firm, basic preparation in the fundamentals of chemistry, physics, and biology be obtained; but, with this grounding, a student whose major undergraduate interest lies outside the biological or physical sciences should have adequate scientific preparation for medicine. Intense scientific specialization will come soon enough, when the student enters the Medical School. While this specialization is valuable, it is exceedingly important that specialists in the health sciences remain fully aware that they are dealing with human beings and not with scientific data alone. 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 and other environmental factors have much to do with his physical and mental health.

Certainly, a student with a real 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 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 real 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 have completed 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.

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	8	
Biology		15
General biology or zoology	9	
Selections from comparative anatomy, embryology, or genetics		
(in this order of preference)	6	
Physics		12
Mathematics		6
*English		9
Electives		72
		-
Total prescribed credit.		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.

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 course between courses 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, and foreign language.

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.

Applicants should take the test during the year immediately preceding their admission to 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 College, 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.

Application Procedure. Application forms may be obtained from the Medical School Registrar, and all credentials should be sent to that office. Because the

^{*} 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.

Committee on Admissions begins examining applications a year in advance of entrance to the Medical School, early application is advisable. Applications are accepted between July 1 and December 15. A place in the first-year class is not granted to an applicant more than one year before the beginning of instruction for that class.

The University of Oregon Medical School gives primary consideration to well-qualified applicants who are residents of Oregon. Preference is also given to residents of neighboring western states which do not have medical schools, particularly residents of states 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 Idaho, Montana, Arizona, New Mexico, Wyoming, or Alaska 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-certified applicant pays the Oregon resident tuition fee.

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

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

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

A fee of \$5.00, 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 21/2" x 3."

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: (1) a health questionnaire, completed by the student; (2) 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. 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 1. Acknowledgement of notification of acceptance should be made promptly in writing by the successful applicant.

Acceptance of Appointment. When an applicant is accepted for 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 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 limited number of students can be admitted with advanced standing.

Registration Procedure. Medical students register only once each year (see Calendar, p. 8), at the beginning of the fall term. Students report to the Registrar's Office on the day of registration to receive schedules of classes and fee slips (indicating the total fees to be paid for the term). Fees are to be paid at the Cashier's Office during the first week of classes.

Schedules of classes for subsequent terms are available at 8:00 a.m. on the first day of the term at the Registrar's Office. During the first week of the term the student must report to that office to pick up a fee slip.

Book lists and lists of necessary equipment are provided students during registration. These lists also are available in the Book Store.

Fees and Expenses

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

Regular Fees
Tuition, per term\$ 60.00
Laboratory and course fee, per term
¹ Building fee, per term
² Incidental fee, per term
4100 00
\$190.00
Nonresident fee, per term (in addition to fees for resident students)\$ 91.00
Graduate Fees
For graduate students registered for 7 or more term hours of work per term:
Tuition
Laboratory and course fee
¹ Building fee
² Incidental fee

\$ 63.00
For graduate students registered for 6 term hours of work
or less
For graduate students employed as graduate or research assistants or fellows,
per term: Building fee
² Incidental fee 10.00
10,00
\$ 17.00
Deposits
*Deposit to reserve place in entering class (applied on tuition)\$25.00
Breakage deposit, per year—first and second years
*Breakage deposit, per year—graduate students
Special Fees
•
Registration and laboratory fee for special students registered for 6 term hours of work or less\$16.00 per term hour (minimum, \$32.00 per term)
Auditor's fee for lectures, per term hour
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.
¹ Part-time special students (students taking 6 hours of work or less) do not pay the build-
ing fee. 2 The incidental fee is for student health service.

The incidental fee is for student health service.
 Only those students pursuing programs of study toward the M.A., M.S., or Ph.D. degree are classified as graduate students. These students do not pay the nonresident fee.

⁴ See page 21.

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 resposible cannot be established, a pro-rata charge is made against the entire class of which he is a member.

Late-registration fee, per day\$ 1.0)
Students registering after the scheduled registration day of any term pay a late- registration fee of \$1.00 per day. The first penalty day for graduate students is one week after the scheduled registration day.	
Penalty for late payment of tuition and fees, per day	5
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 \$4.00 a term.

Estimate of Yearly Expenses

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

Tuition and fees, full-time resident students\$	570.00
Tuition and fees, full-time nonresident students	843.00
Breakage deposit	15.00
Microscope fee	12,00
Books and supplies	
Board and room	
Personal expenses	

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

The Oregon State Board of Higher Education has ruled that any person who comes into the state of Oregon for the purpose of attending one of the institutions under the control of the Board, and who for any reason is not qualified for classification as a resident of the state of Oregon, shall pay the nonresident fee, except:

(a) a student who holds a degree from an accredited college or university and is registered in a curriculum other than professional dentistry, law, or medicine, (b) a student attending summer session, (c) a student paying part-time fees, (d) a student whose parent is a regular employee of the Federal government stationed in Oregon, (e) a student who has been a resident of Hawaii or Alaska for two years immediately preceding admission to the Medical School, or (f) a student whose father is domiciled in the state of Oregon as defined under (1) below.

The residence or domicile of a student is normally that of his father; if his father is not living, it is normally that of his mother. In case of parents' divorce, the domicile of a student is generally determined by the residence of the parent to whom custody is granted by the court. The domicile of a wife is normally that of her husband; if both are students, the wife's residence status is determined by that of the husband. The domicile of a student who is independent of the relations mentioned above is determined by rule (1) below. An alien cannot begin to establish residence until he has convincingly demonstrated his intention to become a citizen.

The Board has established the following rules to be observed in determining the residence status of students:

- (1) Residence and domicile are synonymous and domicile shall be considered to be a fixed permanent residence to which to student has the intention of returning. The fixed permanent residence must normally have been maintained for at least twelve months prior to the school term for which resident classification is sought,* and must be a bona-fide residence which the student has no intention of changing when the school period has expired. Proved actual residence and intention to remain must exist simultaneously. Factors used in considering intent include length of time within the state, age and family status of student, residence of near relatives, place of voting, ownership of property, source of financial support, record of employment and schooling (intent cannot be demonstrated by school attendance alone).
- (2) A student whose official records show his own or his parent's domicile to be outside of Oregon is prima facie a nonresident, and the burden is upon the student to prove the contrary. If his official transcripts of academic record show attendance at a school outside of Oregon, he may be required to furnish further proof of Oregon domicile.
- (3) A nonresident at the time of enrollment is held to that classification throughout his attendance as a student, except where he can prove that his or her parents' previous domicile has been abandoned and a new one established in Oregon in accordance with these regulations. A resident student will be reclassified as nonresident at any time his Oregon domicile is lost.

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. The Medical School maintains contractual arrangements with the Veterans Administration covering practically all courses of study offered by the institution.

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

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

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

Scholastic Regulations

Grades and Grading System. A numerical grading system of I to V is used at the Medical School. I is the highest and V 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

^{*} This twelve-month period must include at least six consecutive months during which the student was not enrolled for full-time work in a collegiate educational institution.

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 average of 4.00 or better (less than 4.00) determined from grades received and number of credit hours. 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 heads of departments, considers primarily requests from students arising from actions taken by the Preclinical and Clinical Promotion Boards.

Elective Courses. Elective courses in the clinical departments are open to third- and fourth-year students at the time of registration. Elective courses in basic science departments are restricted to graduate students, except with special permission.

If the student should withdraw from an elective course for any reason, he must make formal withdrawal 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. All candidates for degrees are required to be present at the Commencement Excercises 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 or with the National Board of Medical Examiners, 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 requirement may be obtained by writing the Basic Science Examining Committee, Oregon State Board of Higher Education, Eugene.

Completion of Parts I, II, and III of the National Board of Medical Examiners examinations is not required by the Medical School, but is highly recommended.

Curriculum in Medicine

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

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

The prescribed and recommended subjects for the three premedical years are described under Admission and Requirements. In the first, second, third, and fourth years at the Medical School there are 5,412 class hours of required work. Descriptions of courses are to be found under the several departmental headings.

Prescribed Work

First Year

,	—–Agg	gregate	class hou	irs-	Term
	Lecture	Lab.	Clinic	Total	hours
An 411, 412, 413Gross Anatomy	84	288		372	15
An 414 Embryology	24	72	••••	96	4
An 415Histology	36	108		144	6
An 511Neurology	24	72		96	4
BCh 411, 412Biochemistry		180		276	13
Phy 411Human Physiology		108	•	168	8
Psy 411, 412Intro. to Medical Psychology			••••	48	3
PH 411Statistical Methods	12	36		48	2
					_
	384	864	••••	1,248	55
Second Year					
Bac 413, 414Med. Microbiology & Immunology	72	144		216	10
CP 511Intro. to Clinical Pathology		72	•	108	5
Pth 511, 512General Pathology	72	144		216	10
Pth 514Gyn. and Obs. Pathology	12	24	••••	36	11/2
Phc 511, 512Pharmacology	96	72		168	10
Phys 412Human Physioliogy	48	72		120	6
Med 612, 613, 614. Physical Diagnosis	72		72	144	9
Psy 511, 512Interview. Tech. & Psychiatric Med		48		72	4
PH 512, 513Epidemiology	36	36	•	72	4
Sur 610, 611Introduction to Surgery	24		•	24	2
Sur 612Healing Processes	12	•	•	12	1
	504	612	72	1,188	621/2

Third Year

	Innu I cai					
	_	Ag	gregate	class hou	rs	Term
	L	ecture	Lab.	Clinic	Total	hours
	PATHOLOGY					
D+h 51 5	Laboratory Neuropathology	12	24		36	11/2
	Clin. Pathology Conference			24	24	1 2
I th 015, 010			••••			-
35 3 415 414 415	MEDICINE	0.4			. 84	7
	Lectures in Internal Medicine			276	276	12
	Clinical Clerkship		••••	276	36	3
Der 615, 616, 617	.Lect. & Demon. in Dermatology	- 36	••••	••••	30	3
	PSYCHIATRY					
	Lectures in Clinical Psychiatry		••••	****	12	1
Psy 630	Clinical Clerkship	• ••••	•	72	72	3
	RADIOLOGY					
Rad 615, 616, 617	Radiographic Diagnosis	. 36	****		36	3
,	PUBLIC HEALTH & PREVENTIVE MEDICI					
DT 511	Principles of Public Health				36	3
Ff1 311		. 30	*		30	3
	SURGERY					_
	Minor Surgery		••••		24	2
	Lectures on Surgery		••••		36	3
	Clinical Clerkship		••••	210	210	81/2
	Surgery Clerkship-Clinic		•	36	36	11/2
	Orthopedics		••••	••••	24	2
	Surgery of the Extremities		****	••••	24	2
	.Orthopedic Clerkship-Clinic			12	12	1/2
	Fractures and Joint Injuries		•	24	24	1
Ur 615	.Dis. of Genito-Urinary Tract	. 12	•		12	1
Ur 630	.Urology Clerkship-Clinic			12	12	⅓
Ur 631	.Urology Clerkship			24	24	1
Anes 615, 616	.Lectures on Anesthesia	. 24		****	24	2
Anes 630	Regional Anesthesia	. 18			18	11/2
Neur Surg 630	Neurosurgical Seminar			24	24	1
_	OPHTHALMOLOGY					-
Eve 615	Eye	12			12	1 .
2) (01)	_	. 12	••••	•	12	
7	OTOLARYNGOLOGY					
	Ear, Nose and Throat		••••	•	12	1
Ent 616	Ear, Nose and Throat	. 12	****	****	12	1
	OBSTETRICS					
Obs 615	.Introductory Obstetrics	. 12		•	12	1
Obs 616	Lectures & Demonstration in Obstetrics	12		•	12	1
	Clinical Clerkship		••••	66	66	3
Obs 631	.Manikin			12	12	1/2
	.Attendance at Deliveries		****	12	12	1/2
	GYNECOLOGY					
Gvn 615 616	-Gynecology	24			24	2
Gyn 630	Clinical Clerkship	. 44	•		24	2
Gy11 030		•	••••	60	6 0	21/2
	PEDIATRICS					
	Diseases of Infancy & Childhood			•	3 6	3
Ped 630	Clerkship		****	174	174	71/2
	•	_				_
		498	24	1,038	1,560	86
	Fourth Year					
	CLINICAL PATHOLOGY					
CP 650	Clinical Pathology	. 12		••••	12	1
Du ceo cea ceo	PATHOLOGY			•		
	.Clinical Pathology Conference		••••	3 6	36	1 1/2
	Forensic Medicine			****	12	1
	Oncology		12	••••	24	1
Pth 655	Surgical Pathology	. 12	24	•	36	11/2
	Medicine					
Med 650 651 652	General Clinical Conference			72	72	3
	Conference on Medical Therapy			36	36	ა 1½
	Allergy		••••		36 12	1 /2 1
	Occupational Medicine		••••	•	12	
			••••			1
111CG 030	Medical Economics	. 12	••••	•	12	1

•							
		_			class hou		Term
		Le	cture	Lab.	Clinic	Total	hours
Med 670	Medical Outpatient Clinic				120	120	5
	Gastroenterology Outpatient C			••••	.12	12	1/2
	Metabolism & Diabetes Outpat			••••	12	12	1,5€
	Endocrinology Outpatient Clin			***	12	12	1/2
	Cardiovascular-renal Outpatie				12	12	1/2
	Chest Disease Outpatient Clin				12	12	1/2
	Allergy Outpatient Clinic				12	12	1/2
	Hematology Outpatient Clinic			••••	12	12	72 1/2
	Tb. Outpatient Clinic and Cler				24	24	1 72
				****	12		
	Neurology Outpatient Clinic			••••		12	1/2
	Dermatology Outpatient Clinic			••••	36	36	11/2
DM 650	Dent. Facial Growth & Oral I	rath	12		****	12	1
	PSYCHIATRY						
Psy 670	Psychiatry Outpatient Clinic &	Clerk			72	72	3
-	Surgery						
C 650	Surgical Conference	,	10			12	1
				••••	40		
	General Surgical Clinic				48	48	2
	Surgery Outpatient Clinic				60	60	21/2
	Surgical Conference				12	12	1/2
	Cancer			••••	24	24	1
Sur 673	Clinical Pathology		••••	**	36	36	11/2
Sur 674	Physical Medicine			••••	24	24	1
Orth Sur 670	Orthopedic Outpatient Clinic		••••	•	36	36	11/2
	Dis. of Genito-Urinary Tract			****	••••	12	1
	Urology Outpatient Clinic				36	36	11/2
	Anesthesia Clerkship				12	12	1/2
211100 07 0111111111111	•	***************************************		••••	12		/2
	OPHTHALMOLOGY						_
	Eye			••		12	1
Eye 670	Eye Outpatient Clinic	• · · · · · · · · · · · · · · · · · · ·			24	24	1
	OTOLARYNGOLOGY						
Ent 670	Ear, Nose & Throat Outpatient	Clinic		••••	36	36	11/2
	· · · · · · · · · · · · · · · · · · ·			•	••	-	- /2
01 670	OBSTETRICS						
	Obstetrics Outpatient Clinic				54	54	21/2
	Spec. Prob. in Obs. Outpatient			****	18	18	1
	Postnatal Outpatient Clinic				18	18	11/2
Obs 673	Attendance at Deliveries		****		3 6	36	11/2
	GYNECOLOGY						
Gyn 670	Gynecology Outpatient Clinic				48	48	2
	Gynecology Tumor Outpatient			****	24	24	ī
0,11 0, 2,	Pediatrics	01111101111					-
D 1.450							
	Pediatric Outpatient Clinic			****	90	90	4
Ped 671	Pediatric Outpatient Specialty	Clinic		•	120	120	5
							-
			132	36	1,248	1,416	641/2
	.	• .•					
	Recapitu	lation					
		A		L	_		T
		—Aggreg				· · ·	Тегт
	Lecture	Laborate	ory	Clinic	1	'otal	hours
First year	384	864			1	,248	531/2
	504	612		72		,188	621/2
		24		1.038		.560	86
	132	36		1,248		,416	641/2
					-		
	1,518	1,536		2,358	5	,412	2661/2
	_,,,,,	_,		_,,0		,	/2
		_					

Prescribed Work by Departments

Preclinical	Aggregate class hours
Anatomy	708
Bacteriology	216
Biochemistry	276
Clinical pathology	108
Pathology	216
Pharmacology	168
Physiology	288

Medical psychology	48
Public health	48
Total hours, preclinical	2,076
Clinical	
Clinical pathology	12
Pathology	204
Medicine:	
General medicine	876
Dermatology	72
Neurology	12
Dental medicine.	12
Psychiatry	228
Radiology	36
Public health	108
Surgery:	
General surgery	558
Orthopedic surgery	120
Urology	96
Anesthesiology	54
	24
Neurosurgery	48
Ophthalmology	48 60
Otolaryngology	
Obstetrics	240
Gyencology	156
Pediatrics	420
Total hours, clinical	3,336
Total hours, prescribed work	5,412

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

REQUIRED COURSES

FIRST YEAR

An 411, 412, 413. Gross Anatomy. 7 hours fall, 5 hours winter, 3 hours spring.

Regional dissection of the human body. Each two students dissect 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 radio-logical anatomy. Fall: lecture and quizzes, 3 hours a week; laboratory, 12 hours a week. Winter: lectures and quizzes, 2 hours a week; laboratory, 9 hours a week. Spring: lectures and quizzes, 2 hours a week; laboratory, 3 hours a week. 372 hours.

An 414. Embryology. 4 hours fall.

Lectures on reproductive cycle, fertilization, normal and abnormal human development, correlated with the laboratory study of pig embryos and with demonstrations of human embryos and fetuses. Lectures and quizzes, 2 hours a week; laboratory, 6 hours a week. 96 hours.

An 415. Histology and Organology. 6 hours winter.

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.

Open to qualified students in any branch of anatomy upon approval of the instructors.

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

An 507. Seminar and Journal Club. Any term, hours to be arranged.

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 611. Applied Anatomy. 2 hours spring.

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

REQUIRED COURSES

SECOND YEAR

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

Lectures and recitations, 3 hours a week; laboratory, 6 hours a week. 216 hours.

ELECTIVE COURSES

- Bac 501. Research in Bacteriology and Immunology. 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.

Biochemistry

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

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

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

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

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

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

Clinical Pathology

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 development in laboratory methods applicable to the practice of medicine. Special emphasis on serum diagnosis and the use of radioisotopes. 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.

Pathology

REQUIRED COURSES

SECOND YEAR

Pth 511. General Pathology. 5 hours fall.

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

Pth 512. General Pathology. 5 hours winter.

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

Pth 514. Gynecological and Obstetrical Pathology. 1½ hours spring.

Basic and practical consideration of diseases of female organs. Lectures, 1 hour a week; laboratory, 2 hours a week. 36 hours.

THIRD YEAR

Pth 515. Laboratory Neuropathology. 11/2 hours fall.

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

Pth 615, 616. Clinical Pathology Conference. 1/2 hour each term.

Presentation of autopsy cases by departments concerned, together with clinical pathologic correlation and general discussion. 1 hour a week; 24 hours.

FOURTH YEAR

Pth 650, 651, 652. Clinical Pathology Conference. 1/2 hour each term.

Presentation of autopsy cases by departments concerned, together with clinical pathologic correlation and general discussion. 1 hour a week; 36 hours.

Pth 653. Forensic Medicine. 1 hour fall.

Lectures and demonstration 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.

Pth 655. Surgical Pathology. 1½ hours, one section each term.

3 hours a week; 36 hours.

ELECTIVE COURSES

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

Open to specially qualified students.

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

Pth 516. Advanced Systemic Pathology. Any term, hours to be arranged. Study of the detached pathology of one system.

Pth 517. Advanced Pathological Histology. Any term, hours to be arranged.

Systematic study of microscopic sections of autopsy tissues. Open to students who have had at least one term's work in pathology.

Pth 518. Special Pathology of Heart and Circulation. Spring, hours to be arranged.

Pth 614. Attendance at Autopsies. Fall or winter, 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.

Pth 690. Tumor Clinic. 1/2 hour, one section each term.

Attendance at tumor clinic at U. S. Veterans Hospital. 2 hours a week for six weeks: 12 hours.

Pharmacology

REQUIRED COURSES

SECOND YEAR

Phe 511. Systematic Pharmacology and Prescription Writing. 5 hours winter. Lectures and quizzes, 4 hours a week; laboratory, 3 hours a week. 84 hours.

Phc 512. Systematic Pharmacology and Pharmacodynamics. 5 hours spring. Lectures and quizzes, 4 hours a week; laboratory, 3 hours a week. 84 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 of pharmacological problems.

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.

Phc 514. Toxicological Analysis. 2 hours spring.

(Second year.) Limited to 16 students. Lectures and quizzes, 1 hour a week; laboratory, 3 hours a week. 48 hours.

Physiology

REQUIRED COURSES

FIRST YEAR

Phy 411. Human Physiology. 8 hours spring.

Introductory general physiology; digestive tract, endocrine glands, renal physiology, circulation, respiration, nervous system, and special senses. Lectures, 5 hours a week; laboratory, 9 hours a week. 168 hours.

SECOND YEAR

Phy 412. Human Physiology. 6 hours fall.

Special laboratory and library projects on advanced human and mammalian physiology. 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.

Clinical Departments

Medicine

Internal Medicine

REQUIRED COURSES

SECOND YEAR

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

Lectures, 2 hours a week; demonstrations, 2 hours a week. 144 hours.

THIRD YEAR

Med 615, 616, 617. Lectures on Internal Medicine. 3 hours fall; 2 hours each term, winter and spring.

Discussions of the broad principle and concepts concerned with the recognition and treatment of medical disorders. 84 hours.

Med 630. Clinical Clerkship. 12 hours, one section each term.

One-third of the class is assigned to the medical services of Multnomah, Medical School and Veteran's hospitals for one term in rotation, for the purpose of case study, ward and teaching rounds, and clinical conferences. Students also study selected psychiatric problems with the Department of Psychiatry (see Ps 630). 276 hours.

FOURTH YEAR

Med 650, 651, 652. General Clinical Conference. 1 hour each term.

Presentation and discussion of basic problems in clinical medicine by all departments of the Medical School. 2 hours a week; 72 hours.

Med 653, 654, 655. Conference on Medical Therapy. ½ hour each term.

Conferences on therapy. 1 hour a week; 36 hours.

Med 656. Allergy. 1 hour spring.

Lectures and clinical discussions. 1 hour a week; 12 hours.

Med 657. Occupational Medicine. 1 hour spring.

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

Med 658. Medical Economics. 1 hour spring.

Lectures. 1 hour a week; 12 hours.

Med 670. Medical Outpatient Clinic. 5 hours, one section each term.

Diagnosis and treatment of ambulant medical patients under supervision. 10 hours a week; 120 hours.

Med 671. Gastroenterology Outpatient Clinic. ½ hour, one section each term.

Outpatient Clinic clinical conferences. 2 hours a week for six weeks; 12 hours.

Med 672. Diabetes and Metabolism Outpatient Clinic. 1/2 hour, one section each term.

Outpatient Clinic clinical conferences. 2 hours a week for six weeks; 12 hours.

Med 673. Endocrinology Outpatient Clinic. 1/2 hour, one section each term.

Outpatient Clinic clinical conferences. 2 hours a week for six weeks; 12 hours.

Med 674. Cardiovascular-Renal Outpatient Clinic. 1/2 hour, one section each term.

Outpatient Clinic clinical conferences. 2 hours a week for six weeks: 12 hours.

Med 675. Chest Disease Outpatient Clinic. 1/2 hour, one section each term.

Outpatient Clinic clinical conferences. 2 hours a week for six weeks; 12 hours.

Med 676. Allergy Outpatient Clinic. 1/2 hour, one section each term.

Outpatient Clinic clinical conferences. 2 hours a week for six weeks; 12 hours.

Med 677. Hematology Outpatient Clinic. 1/2 hour, one section each term.

Outpatient Clinic clinical conferences. 2 hours a week for six weeks; 12 hours.

Med 678. Tuberculosis Outpatient Clinic and Clerkship. 1 hour, one section each term.

Case studies, clinical conferences, and X-ray conferences concerning patients in the Tuberculosis Hospital and Tuberculosis Outpatient Clinic. 2 hours a week: 24 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.

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.

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

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

Med 690. Medical Outpatient Clinic. Any term, hours to be arranged in accordance with the requirements of the regular Outpatient Clinic course.

(Fourth year.) Elective credit for completion of clinical work in the department in addition to that required in the regular Outpatient Clinic course.

Med 691. Tuberculosis Control Outpatient Clinic for Children. 1/2 hour, one section each term.

(Fourth year.) Limited to 4 students. 2 hours a week for 6 weeks; 12 hours.

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

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

Med 693. Rheumology Outpatient Clinic. 1 hour each term.

Outpatient Clinic. Clinical conferences and demonstrations. Limited to 9 students a term. 2 hours a week; 24 hours.

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

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

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

Lectures and discussions presenting concepts of disease that have developed from advances in basic and clinical research; principles upon which contemporary research in medical science is based; discussions of current investigation of major disease processes. 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 with conference and supervision by the staff.

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

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

Neurology

REQUIRED COURSE

FOURTH YEAR

Neu 670. Neurology Outpatient Clinic. ½ hour, one section each term.

Outpatient Clinic clinical conferences. 2 hours a week for six weeks; 12 hours.

ELECTIVE COURSE

Neu 691. Neurology Conference. 1 hour any term.

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

Dermatology

REQUIRED COURSES

THIRD YEAR

Derm 615, 616, 617. Lectures and Demonstrations in Dermatology. 1 hour each term.

Presentation of clinical cases, with detailed discussion of etiology, symptomology, and differential diagnosis. 1 hour a week; 36 hours.

FOURTH YEAR

Derm 670. Dermatology Outpatient Clinic. 1½ hours, one section each term.

Utilization of outpatient material; clinical and microscopic diagnostic procedures; general therapy. 3 hours a week, 36 hours.

Dental Medicine

ELECTIVE COURSE

FOURTH YEAR

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

Designed to give the medical student an appreciation of significant growth and developmental changes in dentition, the nature and systemic relation of oral disease, and the reciprocal relation of systemic disturbance upon the oral tissues. A survey of oral disease provided by textbook reading; the lectures give special emphasis on dental caries, oral foci of infection, periodental disease, inflammatory conditions of the oral mucosa, and diagnostic method, including oral radiography. 1 hour a week; 12 hours.

Psychiatry

Psychiatry

REQUIRED COURSES

SECOND YEAR

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

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

THIRD YEAR

Ps 615. Lectures in Clinical Psychiatry. 1 hour spring.

A systematic presentation of clinical, pharmacological, and experimental aspects of psychosis and neurosis. 1 hour a week; 12 hours.

Ps 630. Clinical Clerkship. 3 hours, one section each term.

Emphasis on the diagnosis and treatment of the psychosocial components of a wide variety of medical and psychiatric inpatient problems. 6 hours a week during the clerkship in medicine; 72 hours.

FOURTH YEAR

Ps 670. Psychiatry Outpatient Clinic Clerkship. 3 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. 6 hours a week; 72 hours.

ELECTIVE COURSES

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

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

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

Psychology

REQUIRED COURSES

FIRST YEAR

Ps 411, 412. Introduction to Medical Psychology. 1½ 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 the scientific base of psychiatry. 2 hours a week; 48 hours.

ELECTIVE COURSE

Ps 501. Research in Psychology. Any term, hours to be arranged.

Radiology

REQUIRED COURSES

THIRD YEAR

Rad 615, 616, 617. Radiographic Diagnosis. 1 hour each term.

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 615. Radiographic Diagnosis. Any term, hours to be arranged.

(Third or fourth year.) Practical experience derived from interpretation of cases from the current files, Correction of student's reports and final dictations by member of staff. Limited to 3 students.

Public Health and Preventive Medicine

REQUIRED COURSES

FIRST YEAR

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

Introduction to the principles of scientific method and statistical reasoning useful in the practical problems of medical research, practice, and administration. Lectures, 1 hour a week; laboratory, 3 hours a week. 48 hours.

SECOND YEAR

PH 512. Epidemiology. 1 hour winter.

Clinical and epidemiologic aspects of communicable diseases, correlated with bacteriology. 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. 3 hours winter.

The general principles of public health activities; control of communicable diseases; organization of Federal, state, local, and other health agencies; elements of infant, school, and industrial hygiene; vital statistics. Lectures, recitations, and discussions. 3 hours a week; 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. Hours to be arranged.

Surgery

General Surgery

REQUIRED COURSES

SECOND YEAR

Sur 610, 611. Introduction to Surgery. 1 hour each term, winter and spring.

Designed to give the student an appreciation of surgery, the history of its achievements and its limitations, the principles and underlying surgical techniques, and the application of the basic sciences to surgical practice. Lectures, 1 hour a week: 24 hours.

Sur 612. Healing Processes. 1 hour spring.

The reaction of soft parts and bone to injury, infection, and tumors; the principles of surgical treatment. Lectures, 1 hour a week; 12 hours.

THIRD YEAR

Sur 615, 616. Minor Surgery. 1 hour each term, fall and winter.

A systematic presentation by lectures and demonstrations of the surgical conditions which occur in ambulatory patients. 1 hour a week; 24 hours.

Sur 617, 618, 619. Lectures on Surgery. 1 hour each term.

A systematic lecture survey of surgical conditions, with emphasis on pathophysiologic process, the essentials of clinical diagnosis, and the physiologic, biochemical, and anatomical basis for therapy. 1 hour a week; 36 hours.

Sur 630. Clinical Clerkship. 8½ hours, one section each term.

Orientation lectures, case discussion, and instruction in the methods of physical examination and history taking. Work at the bedside in the examination of the surgical patient. Emphasis throughout is placed on individual instruction or instruction in small groups. One-third of the class is assigned, by groups, to the surgical services of Multnomah Hospital, the Medical School Hospital, and the Veteran's Hospital for one term. 210 hours.

Sur 631. Surgery Clerkship-Clinic. 1½ hours, one section each term.

Clinics and demonstrations to familiarize the student with the techniques of examination and the diagnostic procedures used in general surgery. A correlative clinic given in connection with inpatient clerkship work. 3 hours a week; 36 hours.

FOURTH YEAR

Sur 650. Surgical Conference. 1 hour, winter term.

1 hour a week: 12 hours.

Sur 651, 652. **General Surgical Clinic.** 1 hour each term, fall and winter. 2 hours a week; 48 hours.

Sur 670. Surgery Outpatient Clinic. 2½ hours, one section each term.

Active student participation in all phases of the clinical management of ambulant patients in the surgery outpatient clinic. 5 hours a week; 60 hours.

Sur 671. Surgical Conferences. 1/2 hour, one section each term.

A weekly meeting of the attending surgical staff, surgical house officers, and students. Case presentations and group discussions of selected problems in surgery with problem case conferences. 2 hours a week for six weeks; 12 hours.

Sur 672. Cancer. 1 hour, one section each term.

An introduction to clinical problems in cancer by student attendance at tumor clinic, tumor conference, and student participation in the management of specific patients with cancer. 4 hours a week for six weeks; 24 hours.

Sur 673. Clinical Pathology. 1½ hours, one section each term.

A clinical study of the significance, interpretation, and technique of clinical laboratory procedures, with emphasis on surgical applications. Correlative lectures, clinical laboratory demonstrations, workship sessions, and problem case conferences analyzing selected patient problems. 6 hours a week for six weeks; 36 hours.

Sur 674. Physical Medicine. 1 hour, one section each term.

Practical discussions and demonstrations of the applications and theory of physical medicine. 2 hours a week; 24 hours.

ELECTIVE COURSES

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

For third- or fourth-year students.

Sur 640. Proctology Lectures. ½ hour.

(Third year.) 1 hour a week; 12 hours.

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

Orthopedic Surgery

REQUIRED COURSES

THIRD YEAR

Orth Sur 615. Orthopedics. 2 hours fall.

Lectures and patient demonstrations of orthopedic conditions of adults and children. 2 hours a week; 24 hours.

Orth Sur 616, 617. Surgery of the Extremities. 1 hour each term, winter and spring.

Lectures and patient demonstrations concerned chiefly with the diagnosis and treatment of fractures and other injuries. 1 hour a week; 24 hours.

Orth Sur 630. Orthopedic Clerkship-Clinic. 1/2 hour, one section each term.

Clinics and demonstrations to familiarize the student with the techniques of examination and the diagnostic procedures used in orthopedics. A correlative clinic given in connection with inpatient clerkship work. 1 hour a week; 12 hours.

Orth Sur 631. Fractures and Joint Injuries. 1 hour, one section each term.

Patient demonstrations, ward walks, and lectures on fractures, joint injuries, and other traumatic affections. 2 hours a week; 24 hours.

FOURTH YEAR

Orth Sur 670. Orthopedic Outpatient Clinic. 1½ hours, one section each term. Active student participation in all phases of the clinical management of ambulant patients in the orthopedic outpatient clinic. 3 hours a week; 36 hours.

ELECTIVE COURSES

- Orth Sur 601. Research. Any term, hours to be arranged. For third- or fourth-year students.
- Orth Sur 690. Orthopedic Outpatient Clinic. Any term, hours to be arranged in accordance with the requirements in the regular Orthopedic Outpatient Clinic course (Orth Sur 670).
- Orth Sur 691. Orthopedic Ward Walk. 1 hour, one section each term.

General ward rounds in the Shriner's Hospital for Crippled Children, with discussion of the cases and methods of orthopedic treatment in deformities of children. 2 hours a week: 24 hours.

Urology

REQUIRED COURSES

THIRD YEAR

Ur 615. Diseases Affecting the Genito-Urinary Tract. 1 hour spring.

A systematic presentation by means of lectures and patient demonstration of the diagnosis and treatment of urologic conditions. I hour a week; 12 hours.

Ur 630. Urology Clerkship-Clinic. 1/2 hour, one section each term.

Clinics and demonstrations to familiarize the student with the techniques of examination and diagnostic procedures used in urology. A correlative clinic given in connection with inpatient clerkship work. I hour a week; 12 hours.

Ur 631. Urology Clerkship. 1 hour, one section each term.

A ward walk and clerkship. Supervised workup of urology inpatients. 2 hours a week; 24 hours.

FOURTH YEAR

Ur 650. Diseases Affecting the Genito-Urinary Tract. 1 hour fall.

A continuation course, extending the study of urologic problems, diagnostic techniques, and the principles of urologic treatment. Lectures and clinic presentations. 1 hour a week; 12 hours.

Ur 670. Urology Outpatient Clinic. 11/2 hours, one section each term.

Active student participation in all phases of the clinical management of ambulant patients in the urology outpatient clinic. 3 hours a week; 36 hours.

ELECTIVE COURSES

 $Ur\ 601.$ Research. Any term, hours to be arranged.

For third- or fourth-year students.

Ur 690. Urology Outpatient Clinic. Any term, hours to be arranged in accordance with the requirements in the regular Urology Outpatient Clinic course. Fourth year. (Ur 670).

Anesthesiology

REQUIRED COURSES

THIRD YEAR

Anes 615, 616. Lectures on Anesthesia. 1 hour each term, winter and spring.

An integrated series of lectures on anesthesiology, with demonstrations and description of equipment employed; a discussion of the history of anesthesia; applied physiology; the clinical signs and methods of anesthesia; a discussion of the various anesthetic agents. 1 hour a week; 24 hours.

Anes 630. Regional Anesthesia. 1 hour, one section each term.

Lectures concerned with the diagnostic, therapeutic, and anesthetic applications of nerve blocks. Clinical demonstrations of nerve-block procedures, and demonstrations using anatomic dissections. 1½ hours a week; 18 hours.

FOURTH YEAR

Anes 670. Anesthesia Clerkship. 1/2 hour, one section each term.

A continuation course. Observation of anesthetic procedures in the operating room, and directed supervision in assisting with the administration of the various types of anesthetic agents. 4 hours a day for three days; 12 hours.

ELECTIVE COURSE

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

For third- or fourth-year students.

Neurosúrgery

REQUIRED COURSE

THIRD YEAR

Neu Sur 630. Neurosurgical Seminar. 1 hour, one section each term.

Designed to acquaint the student with the major problems of neurological surgery. Emphasis is placed on the manner of diagnosis and the types of treatment available to patients with peripheral nerve, spinal, and intracranial lesions. Lectures, case presentations, and group discussions. 2 hours a week; 24 hours.

ELECTIVE COURSES

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

For third- or fourth-year students.

Neu Sur 640. Differential and Regional Neurosurgical Diagnosis and Therapeutics. ½ hour, winter or spring.

(Fourth year.) Lectures and demonstrations. 1 hour a week: 12 hours.

Ophthalmology

REQUIRED COURSES

THIRD YEAR

Eye 615. Eye. 1 hour fall.

Lectures and quizzes, 1 hour a week; 12 hours.

FOURTH YEAR

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

Lectures, demonstrations, and quizzes. 1 hour a week; 12 hours.

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

2 hours a week; 24 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

REQUIRED COURSES

THIRD YEAR

ENT 615. Ear, Nose, and Throat. 1 hour fall.

Lectures, recitations and quizzes, 1 hour a week; 12 hours.

ENT 616. Ear, Nose, and Throat. 1 hour spring.

Lectures, demonstrations, and quizzes, 1 hour a week; 12 hours.

FOURTH YEAR

ENT 670. Ear, Nose, and Throat Outpatient Clinic. 1½ hours, one section each term.

Practical instruction in examination and treatment. 3 hours a week; 36 hours.

ELECTIVE COURSE

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

REQUIRED COURSES

THIRD YEAR

Obs 615. Introductory Obstetrics. 1 hour fall,

Lectures, recitations, and demonstrations in obstetrics. The anatomy and physiology of the female pelvis and genitals; diagnosis of pregnancy; the management of normal pregnancy; physiology of and clinical course in normal labor and puerperium. I hour a week; 12 hours.

Obs 616. Lecture and Demonstration Course in Obstetrics. 1 hour winter.

Mechanism of normal and abnormal presentation; manikin demonstration; care of the newborn child. Obstetrical technique; forceps version, pubiatomy, cesarean section, and embryotomy. 1 hour a week; 12 hours.

Obs 630. Clinical Clerkship. 3 hours, one section each term.

Patient study, ward rounds, and conferences in obstetrics. Multnomah and Medical School Hospitals. 11 hours a week for six weeks; 66 hours.

Obs 631. Manikin. ½ hour, one section each term.

Lectures and demonstration. 1 hour a week, 12 hours.

Obs 632. Inpatient Service and Attendance at Deliveries. ½ hour any term. Each student required to be in attendance at and observe twelve deliveries in Multnomah Hospital. Prerequisite: Obs 615. 12 hours.

FOURTH YEAR

Obs 670. Obstetrics Outpatient Clinic. 2½ hours, one section each term.

Examination of pregnant women, pelvimetry, and instructions in prenatal and post-partum care. 9 hours a week for 6 weeks; 54 hours.

Obs 671. Special Problems in Obstetrics Outpatient Clinic. 1 hour, one section each term.

Problems involving likely difficult labor due to a large infant or small pelvis (dystocia), metabolic, cardiac, and other complicated obstetrical conditions. Cases are evaluated and a definitive course outlined. 3 hours a week for 6 weeks; 18 hours.

Obs 672. Postnatal Outpatient Clinic. 1 hour, one section each term.

3 hours a week for 6 weeks; 18 hours.

Obs 673. Outpatient Service and Attendance at Deliveries. 1½ hours any term. Delivery of patients in the hospital and attendance upon mother and child after delivery. Each student required to participate in at least six deliveries during an assigned period. Prerequisite Obs 632. 36 hours.

ELECTIVE COURSES

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

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

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

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

Gynecology

REQUIRED COURSES

THIRD YEAR

Gyn 615, 616. Gynecology. 1 hour each term, fall and winter.

Lectures, demonstrations, and recitations. 1 hour a week; 24 hours.

Gyn 630. Clinical Clerkship. 2½ hours, one section each term.

Patient study, ward rounds, and conferences in gynecology. Multnomah and Medical School Hospitals. 10 hours a week for 6 weeks; 60 hours.

FOURTH YEAR

Gyn 670. Gynecology Outpatient Clinic. 2 hours, one section each term. 8 hours a week for 6 weeks; 48 hours.

Gyn 671. Gynecology Tumor Outpatient Clinic and Pathology Conference. 1 hour.

Evaluation of gynecological cancer patients, pre- or post-therapy. A follow-up of at least five years post-therapy is instituted. Complications of surgical and radiologic management are evaluated and corrective measures prescribed. 4 hours a week for 6 weeks; 24 hours.

ELECTIVE COURSES

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

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

Pediatrics

REQUIRED COURSES

THIRD YEAR

Ped 615, 616, 617. Diseases of Infancy and Childhood. 1 hour each term.

A survey of pediatrics from a correlative standpoint, Lectures and demonstrations, 1 hour a week; 36 hours.

Ped 630. Clerkship. 7½ hours, one section each term.

Review of pediatric problems in an inpatient setting by patient responsibility, individual and group discussion. 29 hours a week for 6 weeks; 174 hours.

FOURTH YEAR

Ped 670. Pediatric Outpatient Clinic. 4 hours, one section each term.

General pediatric problems in an outpatient setting with patient responsibility, individual and group discussions. 15 hours a week for 6 weeks; 90 hours.

Ped 671. Pediatric Outpatient Specialty Clinics. 5 hours, one section each term. Study of special pediatric problems in cardiovascular, neurologic, endocrine, metabolic, and hematologic diseases. 20 hours a week for 6 weeks; 120 hours.

ELECTIVE COURSES

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

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

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

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

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

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

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, pathology, pharmacology, and physiology. Work toward the master's degree is offered in medical psychology.

Recommended Preparation for Graduate Work

For admission to graduate studies an applicant must have a Bechelor 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 required before admission to candidacy for the Doctor of Philosophy degree. 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: admission to the Medical School.

Pharmacology: physical chemistry, advanced organic chemistry.

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

Psychology: general psychology, admission to Medical School.

Further information concerning qualifications for graduate study may be obtained from the Registrar's Office or from the head 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 head of the department in which the student desires to work, and (3) approval by the Graduate Council and the dean of the Medical School. 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 I, II, III, or IV are earned. A minimum yearly weighted grade average of 3.00 must be maintained. (See page 25, Promotion.)

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 head.

Requirement 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.

- 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 head 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 head 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 is 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 head 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 pages 22-23.

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 28) 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 80 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, opthalmology, 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: City of Portland Isolation Hospital, Emanuel Hospital,

Shriners' 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. Courses are offered in the following fields: dermatology, general surgery, internal medicine and subspecialties, malignant diseases, obstetrics and gynecology, opthalmology, otolaryngology, orthopedic surgery, pediatrics, radiology, and urology.

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 \$10.00

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.

Nursing Education

THE DEPARTMENT OF NURSING EDUCATION at the University of Oregon Medical School is organized on a collegiate basis; the department offers (1) an undergraduate curriculum designed to prepare young women for service as professional nurses in the care of the sick and in the promotion of community health; and (2) advanced programs of study for graduate nurses.

The student in the undergraduate four-year degree curriculum takes the first five terms of her work at the University of Oregon, at Oregon State College, or at another accredited college or university. The prenursing curriculum is completed with one term of work on the campus of the Medical School, and is followed by a ten-term professional curriculum coordinated with clinical instruction in the hospitals and clinics of the Medical School. The teaching units in which clinical experience is received are the Multnomah Hospital, the University State Tuberculosis Hospital, the Outpatient Clinic, the Oregon State Hospital, and the University of Oregon Medical School Hospital.

The programs for graduate nurses are planned to provide: (1) opportunities for building a strong educational foundation through work in written and spoken English, history, socio-economic problems, literature and the fine arts, and biological and physical science; (2) a thorough preparation in one or more of the following broad nursing fields: (a) general nursing, (b) public health nursing, and (c) teaching and supervision. The programs are open both to nurses who desire to complete work towards a Bachelor of Science degree with a major in nursing and to nurses who wish preparation in a particular area of professional nursing.

A separate catalog containing detailed information on organization, faculty, facilities, requirements, and curricula of the Department of Nursing Education may be obtained on request.

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 \$15.00 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 February 15.

X-Ray Technique

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

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

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

The course includes lectures in anatomy, physiology, physics, and X-ray equipment, and lectures and clinical experience in dark-room chemistry and procedures, X-ray techniques, positioning of patients, hospital ethics, record keeping,

department operation, and X-ray therapy. Students receive clinical experience in special X-ray procedures during their second year of training. All instruction is under the direction of the head 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 Chief Technician, Department of Radiology, University of Oregon

Medical School Hospitals and Clinics.

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

Medical Technology

RAYMOND D. GRONDAHL, M.D., Professor; Head of Department of Clinical Pathology; Director of Medical Technology Program.

JAMES H. LIUM, M.D., Associate Clinical Professor.

MARLOWE DITTEBRANDT, M.D., Assistant Clinical Professor.

HOMER H. HARRIS, M.D., Assistant Clinical Professor.

TYRA T. HUTCHENS, M.D., Assistant Professor.

EUGENE W. LANDRETH, M.D., Assistant Professor.

MARTHA L. HAMILTON, M.D., Instructor.

MARY ELIZABETH BAPTIST, B.A., M.T., Instructor.

DAVID S. TAKALO, M.S., Clinical Instructor in Medical Technology.

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 admission requirements are: two years of college work, including: 18 term hours in biology; 9 term hours in inorganic chemistry; 4 term hours in either quantitative analysis, organic chemistry, or biochemistry. The applicant's credentials must be approved by the Registry prior to admission. At the present time, approximately 20 students are enrolled annually. Preference is given students who have three years of college work.

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.

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

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

	Per term	Per year
Tuition Laboratory and course fee. Building fee. Incidental fee (student health service)	\$ 20.00	\$ 60.00
	32.00	96.00
	7.00	21.00
	10.00	30.00
Total for Oregon residents	\$ 69.00	\$207.00
Total for nonresidents, who pay an additional \$45.00 per term	\$114.00	\$342.00

Medical technology students pay the "special fees" listed on pages 22-23 under the conditions indicated.

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

Curriculum in Medical Technology

	Fall Term	
		Term hours
MT 410.	Clinical Bacteriology	. 4
MT 413. Laboratory Orientation	Laboratory Orientation	. 2
MT 424.	Clinical Biochemistry	. 5
	Principles of Hematology	
	2	
	,	16
	Winter Term	
MT 411	Clinical Bacteriology	6
MT 425	Clinical Bacteriology	. 6 . 6 . 3
MT 431	Special Hematology	. 3
MI 1011 Opecial Licinatology	· <u> </u>	
		15
	Spring Term	
MT 414	Urinalysis	4
MT 420	Histological Teehnique	. 4 . 4 . 5 . 3
	Applied Serology	
MT 437	Clinical Parasitology	. ,
111 737.	Cimical Larasitology	
		16

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 histopathologic 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, gasometric 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 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.

Faculty

Officers of Administration

JOHN R. RICHARDS, Ph.D., Chancellor, Oregon State System of Higher Education; Professor.

O. MEREDITH WILSON, Ph.D., President, University of Oregon; Professor.

DAVID W. E. BAIRD, M.D., LL.D., Dean of the Medical School; Professor of Medicine.

CHARLES N. HOLMAN, M.D., Associate Dean of the Medical School; Professor of Medicine.

WILLIAM A. ZIMMERMAN, B.S., Assistant to the Dean; Associate Professor. JOSEPH J. ADAMS, B.B.A., Director of Public Affairs; Assistant Professor

Hospitals and Clinics Administration

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

CHARLES N. HOLMAN, M.D., Medical Director and Administrator; Professor of Medicine.

JARVIS GOULD, M.D., Assistant Medical Director and Assistant Administrator; Associate Professor of Medicine.

MYRON R. GROVER, M.D., Assistant Medical Director; Instructor in Medicine.

WILLIAM A. ZIMMERMAN, B.S., Assistant Administrator; Associate Professor.

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

Business Office

WILLIAM A. ZIMMERMAN, B.S., Business Manager; Associate Professor. Amby Frederick, B.S., Assistant Business Manager; Assistant Professor. Rodney T. Jeffrey, B.A., Personnel Officer.

Registrar's Office

CAROLINE H. POMMARANE, B.S., Registrar; Assistant Professor.

Library

Bertha Brandon Hallam, B.A., Librarian; Professor.
Ora Kirshner Goodman, B.S., Catalog Librarian; Assistant Professor.
Margaret Elizabeth Hughes, B.S., Circulation Librarian; Assistant Professor.
Lolita B. McElveny, Assistant Circulation Librarian; Instructor.
Marie K. Wagner, B.S., Assistant Circulation Librarian; Instructor.

Buildings and Grounds

A. J. Clemons, Superintendent of Physical Plant; Assistant Professor. Charles H. Anderson, Assistant Superintendent of Physical Plant.

Postgraduate Education

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

Alumni Office

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

Student Health Service

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

Research Instrument Service

GEORGE I. JOHNSTON, B.S., Research Associate.

Medical Illustration

CLARICE ASHWORTH FRANCONE, Medical Illustrator.

Photography

CAROL E. KERR, Photographer.

JAMES T. PHILLIPS, Photographer.

CHARLES U. VAN WALD, Photographer.

Printing and Office Supplies

ALBERT L. BIGEJ, Printer.

Executive Faculty

JOHN R. RICHARDS, Chancellor, State System of Higher Education; O. MEREDITH WILSON, President of the University of Oregon; DAVID W. E. BAIRD, Dean of the Medical School; RALPH C. BENSON, GUY L. BOYDEN, JOHN M. BROOKHART, NORMAN A. DAVID, CHARLES T. DOTTER, ARTHUR W. FRISCH, JARVIS GOULD, RAYMOND D. GRONDAHL, ALLAN J. HILL, CHARLES N. HOLMAN, WARREN C. HUNTER, HOWARD P. LEWIS, EDWIN E. OSGOOD, ANTHONY A. PEARSON, GEORGE SASLOW, RICHARD L. SLEETER, KENNETH C. SWAN, ADOLPH WEINZIRL, EDWARD S. WEST, WILLIAM A. ZIMMERMAN (SECRETARY, ex officio).

Standing Committees

- Admission and Advanced Standing—Edward S. West (chairman), Raymond D. Grondahl, Hance F. Haney, E. Colton Meek, Jr., Joseph B. Trainer, Caroline H. Pommarane (ex officio).
- Curriculum and Schedule—Howard P. Lewis (chairman), Ralph C. Benson, Norman A. David, Charles T. Dotter, Arthur W. Frisch, Allan J. Hill, William W. Krippaehne, Homer P. Rush, George Saslow, Wilbert R. Todd, Adolph Weinzirl, William A. Zimmerman (ex officio).
- Graduate Council—John M. Brookhart (chairman), Robert L. Bacon, Evelyn L. Oginsky, Elton L. McCawley, John T. Van Bruggen.
- Henry Waldo Coe Prize-Hance F. Haney (chairman).
- Jones Lectureship-Howard P. Lewis (chairman), Hance F. Haney.
- Library—Norman A. David (chairman), Morton Goodman, Nelson R. Niles, Goodrich C. Schauffler, Archie R. Tunturi, Wilbert R. Todd, Bertha B. Hallam (ex officio).
- Radioisotope Committee—Raymond D. Grondahl (chairman), Warren C. Hunter, Tyra T. Hutchens, Edwin E. Osgood, John T. Van Bruggen.
- Research—John M. Brookhart (chairman), Robert L. Bacon, John E. Harris, Frederick P. Haugen, Carl E. Hopkins, Daniel H. Labby, Donald E. Pickering, Edward S. West, Joseph J. Adams (ex officio).
- Scholarships—Edward S. West (chairman), Raymond D. Grondhal, Allan J. Hill, William A. Zimmerman.
- Student Faculty—Faculty Members: Frederick P. Haugen (chairman), Howard P. Lewis, E. Colton Meek, Jr., Anthony A. Pearson, Edward S. West. Student Members: R. Bradley Sack, James A. Saunders, Winston E. Maxwell.
- Dean's Advisory Committee for the Veterans Hospital—Matthew C. Riddle (chairman), Donald E. Forster, Charles N. Holman, Howard P. Lewis, Harold J. Noyes, Kenneth C. Swan, Edward S. West.

Emeritus Faculty

RALPH A. FENTON, M.D., Professor Emeritus of Otolaryngology.

NOBLE WILEY JONES, M.D., Professor Emeritus of Medicine.

CHARLES R. McClure, M.D., Professor Emeritus of Orthopedic Surgery.

FRANK R. MENNE, M.D., Professor Emeritus of Pathology.

JAMES W. ROSENFELD, M.D., Professor Emeritus of Pediatrics.

HARRY J. SEARS, Ph.D., Professor Emeritus of Bacteriology.

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

Basic Science Departments

Anatomy

Anthony A. Pearson, Ph.D., Professor; Head of Department. Robert L. Bacon, Ph.D., Associate Professor.
David L. Gunberg, Ph.D., Assistant Professor.
William A. Stotler, Ph.D., Assistant Professor.
Archie R. Tunturi, Ph.D., M.D., Assistant Professor.
Hudson R. Ansley, M.D., Instructor.
Keith D. Holmes, B.A., Student Assistant.
Richard B. Lyons, B.S., Student Assistant.
Sam L. Meyer, B.S., Student Assistant.

Bacteriology

ARTHUR W. FRISCH, Ph.D., M.D., Professor; Head of Department. EVELYN L. OGINSKY, Ph.D., Associate Professor. LYLE VEAZIE, Ph.D., Associate Professor. Gordon H. Davies, A.I.S.T., Research Assistant. R. Bradley Sack, B.S., Student Assistant.

Biochemistry

EDWARD S. WEST, Ph.D., Professor; Head of Department. WILBERT R. TODD, Ph.D., Professor. JOHN T. VAN BRUGGEN, Ph.D., Associate Professor. HOWARD S. MASON, Ph.D., Associate Professor. CLARISSA BEATTY, Ph.D., Assistant Professor. JACK H. FELLMAN, Ph.D., Assistant Professor. ANNE M. PERLEY, M.A., Assistant Professor. RUTH D. PETERSON, Ph.D., Assistant Professor. ELLEN L. TALMAN, Ph.D., Assistant Professor. Rose Mary Bocek, M.S., Instructor. Francisco K. Anan, M.D., D.B.M., Research Associate. JOHN E. HARRIS, M.D., Research Associate. RUSSELL L. JOLLY, Ph.D., Research Associate. ILARION ONOPRYENKO, Ph.D., Research Associate. EDWARD PETERSON, B.A., Research Associate. DONALD E. PICKERING, M.D., Research Associate. DEMETRIOS A. RIGAS, Ph.D. Research Associate. K. Nolan Tanner, Ph.D., Research Associate. MARILOUISE ALLEN, B.S., Research Assistant.

BETTY BAXTER, B.S., Research Assistant. PINKIE S. GEE, B.S., M.T., Research Assistant. Angela M. Guenther, B.S., Research Assistant. PHYLLIS A. HOFFMAN, B.S., Research Assistant. JAMES McNeese, B.S., Research Assistant. JEAN SCOTT, Research Assistant. JAMES ALBEN, B.A., Student Assistant. WALTER C. BERNARDS, B.S., Student Assistant. J. CLINTON ELWOOD, B.S., Student Assistant. KENNETH M. GILES, B.S., Student Assistant. MARVIN HINES, M.S., Student Assistant. G. WILLIAM KEMNITZ, B.S., Student Assistant. NICHOLAS KONTAXIS, A.B., Student Assistant. ALICIA MARCO, B.S., Student Assistant. WILLIAM H. SACK, B.S., Student Assistant. DAVID A. SEARS, B.S., Student Assistant.

Pathology

WARREN C. HUNTER, M.A., M.D., Professor; Head of Department. FRANK B. QUEEN, M.D., Professor. VINTON D. SNEEDEN, M.D., Clinical Professor. SHELDON A. JACOBSON, M.D., Associate Clinical Professor. E. Colton Meek, Jr., M.D., Associate Professor. Отто R. Еміс, M.D., Assistant Professor. JEFF MINCKLER, M.D., Assistant Clinical Professor. Nelson R. Niles, M.D., Assistant Professor. ABE OYAMADA, M.D., Assistant Professor. Ernest J. Losli, M.D., Clinical Instructor. Joseph E. Nohlgren, M.D., Clinical Instructor. YONG H. YANG, M.D., Instructor. Corrado Baglio, M.D., Resident. LINDA E. CASTRO, M.D., Resident. ARTHUR W. FAYEN, M.D., Resident. Zoilo R. Viciedo, M.D., Resident. NICOLA J. ZUMBO, M.D., Resident. JAMES S. BENNETT, D.M.D., Graduate Assistant. RICHARD D. BRUST, B.S., Student Assistant. WINSTON I. COZINE, B.A., Student Assistant. RICHARD A. ROMAINE, B.A., Student Assistant. RICHARD D. SCHULTZ, B.A., Student Assistant.

Clinical Pathology

RAYMOND D. GRONDAHL, M.D., Professor; Head of Department.

James H. Lium, M.D., Associate Clinical Professor.

Marlowe Dittebrandt, M.D., Assistant Clinical Professor.

Homer H. Harris, M.D., Assistant Clinical Professor.

Tyra T. Hutchens, M.D., Assistant Professor.

Eugene W. Landreth, M.D., Assistant Professor.

Mary E. Baptist, B.A., M.T., Instructor in Medical Technology.

Martha L. Hamilton, M.D., Instructor.

David S. Takalo, M.S., Clinical Instructor in Medical Technology.

NIGEL A. PICKERING, M.D., Resident. TOSHIO FUJIKURA, M.D., Resident.

Pharmacology

NORMAN A. DAVID, M.D., Professor; Head of Department. ELTON L. McCawley, Ph.D., Associate Professor.

H. Lenox H. Dick, M.D., Research Associate.

Nilkanth M. Phatak, Ph.G., Ph.D., Research Associate.

Sterling M. Sorenson, Research Assistant.

Royal C. Aubrey, B.A., Student Assistant.

David G. Bragg, B.A., Student Assistant.

Charles B. Carter, B.A., Student Assistant.

Robert P. Doughton, B.A., Student Assistant.

Wesley R. Jacobs, B.S., Student Assistant.

Albert R. Kearns, B.S., Student Assistant.

Benjamin B. Shepherd, B.S., Student Assistant.

Andrew N. Urbano, B.S., Student Assistant.

Physiology

JOHN M. BROOKHART, Ph.D., Professor; Head of Department. WILLIAM D. BLAKE, M.D., Associate Professor. Joseph B. Trainer, M.D., Associate Professor. ALFRED J. RAMPONE, Ph.D., Assistant Professor. BENJAMIN B. Ross, Ph.D., Assistant Professor. EUGENE A. LENTINI, Ph.D., Instructor. George M. Austin, M.D., Clinical Research Associate. MONTE A. GREER, M.D., Clinical Research Associate. WILLIAM L. HARTMANN, M.D., Clinical Research Associate. Donald M. Pitcairn, M.D., Clinical Research Associate. Moses E. Steinberg, M.S., M.D., Clinical Research Associate. ETTORE FADIGA, M.D., Research Fellow. Rolf R. Engel, Student Assistant. LYNN S. HUSBAND, B.S., Student Assistant. LEW B. MYERS, B.S., Student Assistant. T. James Robnett, B.S., Student Assistant. JOHN D. SIGURDSON, B.S., Student Assistant. EDWARD T. TOYOOKA, B.S., Student Assistant.

Clinical Departments

Medicine

Internal Medicine

HOWARD P. LEWIS, M.D., Professor; Head of Department.
DAVID W. E. BAIRD, M.D., Professor; Dean of the Medical School.
HANCE F. HANEY, Ph.D., M.D., Professor; Chief, Department of Medicine Outpatient Professional Services.

BLAIR HOLCOMB, M.D., Clinical Professor; Senior Consultant in Diabetes and Metabolism.

CHARLES N. HOLMAN, M.D., Professor; Associate Dean of the Medical School; Medical Director and Administrator of Hospitals and Clinics.

MERL L. MARGASON, M.D., Clinical Professor; Senior Consultant in Neurology.

EDWIN E. OSGOOD, M.D., Professor; Head of Division of Experimental Medicine.

HOMER P. RUSH, M.A., M.D., Clinical Professor; Senior Consultant in Cardiology.

WILLIAM H. SHELDON, M.D., Clinical Professor.

ROY L. SWANK, M.D., Professor; Head of Division of Neurology.

ISIDOR C. BRILL, M.D., Associate Clinical Professor.

ROBERT S. Dow, M.D., Associate Clinical Professor.

Jarvis Gould, M.D., Associate Professor; Assistant Medical Director of Hospitals and Clinics.

MONTE A. GREER, M.D., Associate Professor; Head of Division of Endocrinology. HERBERT E. GRISWOLD, Jr., M.D., Associate Professor; Head of Division of Cardiology.

CARL G. HELLER, Ph.D., M.D., Associate Clinical Professor.

Daniel H. Labby, M.D., Associate Professor; Head of Division of Diabetes and Metabolism.

George B. Long, M.D., Associate Clinical Professor; Head of Division of Gastroenterology.

MERLE W. MOORE, M.D., Associate Clinical Professor; Head of Division of Allergy.

MATTHEW C. RIDDLE, M.D., Associate Clinical Professor.

DEMETRIOS A. RIGAS, Ph.D., Associate Professor of Experimental Medicine.

LEONARD W. RITZMANN, M.D., Associate Clinical Professor.

ARTHUR J. SEAMAN, M.D., Associate Professor; Associate Director of Division of Experimental Medicine.

JOSEPH B. TRAINER, M.D., Associate Professor.

ZOLTON T. WIRTSCHAFTER, M.D., Associate Clinical Professor.

WILLIAM S. CONKLIN, M.D., Assistant Clinical Professor.

EARL D. DuBois, M.D., Assistant Clinical Professor.

MORTON GOODMAN, M.D., Assistant Clinical Professor.

WILLARD F. HOLLENBECK, M.D., Assistant Clinical Professor.

ROBERT D. KOLER, M.D., Assistant Professor.

JOHN J. KRYGIER, M.D., Assistant Clinical Professor.

FRANK PERLMAN, M.D., Assistant Clinical Professor.

DONALD M. PITCAIRN, M.D., Assistant Professor.

PHILIP SELLING, M.D., Assistant Clinical Professor.

JAMES T. SPEROS, M.D., Assistant Clinical Professor.

JOHN E. TUHY, M.D., Assistant Clinical Professor; Head of Division of Chest Diseases.

Frank Underwood, M.D., Assistant Clinical Professor.

CHARLES P. WILSON, M.D., Assistant Clinical Professor.

HOWARD E. ALLEN, M.D., Clinical Associate.

JAMES H. AUSTIN, M.D., Associate.

EDMUND H. BERGER, M.D., Clinical Associate.

ARTHUR M. BERGMAN, M.D., Clinical Associate.

GEORGE A. BOYLSTON, M.D., Clinical Associate.

EDGAR MURRAY BURNS, M.D., Clinical Associate.

CHARLES W. COFFEN, M.D., Clinical Associate.

WILLIAM COHEN, M.D., Clinical Associate.

RUDOLPH M. CROMMELIN, M.D., Clinical Associate.

AUBREY M. DAVIS, M.D., Clinical Associate.

J. EDWARD FIELD, M.D., Clinical Associate.

DONALD E. FORSTER, M.D., Clinical Associate.

MARTIN F. GILMORE, M.D., Clinical Associate.

HULDRICK KAMMER, M.D., Clinical Associate.

CHARLES E. LITTLEHALES, M.D., Clinical Associate. LENIER ARTHUR LODMELL, M.D., Clinical Associate. ROBERT E. MASS, M.D., Clinical Associate. ROY R. MATTERI, M.D., Clinical Associate. GUY R. McCutchan, M.D., Clinical Associate. RAYMOND A. McMahon, M.D., Clinical Associate. Joseph Miller, M.D., Clinical Associate. ROBERT F. MILLER, M.D., Clinical Associate. JOHN R. MONTAGUE, M.D., Clinical Associate. JAMES F. MORRIS, M.D., Clinical Associate. JOSEPH F. PAQUET, M.D., Clinical Associate. Brent M. Parker, M.D., Clinical Associate. HEYES PETERSON, M.D., Clinical Associate. JOHN M. PIERSON, M.D., Clinical Associate. GEORGE M. ROBINS, M.D., Clinical Associate. ARTHUR L. ROGERS, M.D., Clinical Associate. EDWARD E. ROSENBAUM, M.D., Clinical Associate. MARVIN SCHWARTZ, M.D., Clinical Associate. WILLIAM C. Scott, M.D., Clinical Associate. JOHN L. SOELLING, M.D., Clinical Associate. JANICE R. STEVENS, M.D., Associate. WILLIAM J. SWETT, M.D., Clinical Associate. DAVID K. TAYLOR, M.D., Clinical Associate. BEN VIDGOFF, M.D., Clinical Associate. JOHN D. WELCH, M.D., Clinical Associate. KURT W. AUMANN, M.D., Clinical Instructor. Daniel M. Bachman, M.D., Clinical Instructor. HENRY B. BALLANTYNE, M.D., Clinical Instructor. Samuel T. Beall, M.D., Clinical Instructor. ARTHUR W. BERG, M.D., Clinical Instructor. JOHN A. BLANCHARD, M.D., Clinical Instructor. JAMES F. BLICKLE, M.D., Clinical Instructor. PAUL R. BURGNER, M.D., Clinical Instructor. C. Conrad Carter, M.D., Clinical Instructor. JOHN D. CHASE, M.D., Clinical Instructor. ESTILL N. DEITZ, M.D., Clinical Instructor. SAMUEL DIACK, M.D., Clinical Instructor. H. LENOX H. DICK, M.D., Clinical Instructor. HAROLD P. DYGERT, JR., M.D., Clinical Instructor. STELLA FISHER, M.D., Clinical Instructor. JOHN R. FLANERY, M.D., Clinical Instructor. Peter J. Galante, M.D., Clinical Instructor. WILLIAM P. GALEN, M.D., Clinical Instructor. MARVIN C. GOLDMAN, M.D., Clinical Instructor. Myron R. Grover, M.D., Instructor. JAMES B. HAMPTON, M.D., Clinical Instructor. ROBERT L. HARE, M.D., Clinical Instructor. WILLIAM D. HARRISON, M.D., Clinical Instructor. HARMON T. HARVEY, M.D., Clinical Instructor. THOMAS S. HEALY, M.D., Clinical Instructor. JAMES E. HOLLAND, M.D., Clinical Instructor.

MARCUS M. HORENSTEIN, M.D., Clinical Instructor.

JAY C. HOYT, M.D., Clinical Instructor.

WILLIAM W. HURST, M.D., Clinical Instructor.

ROBERT B. JOHNSON, M.D., Clinical Instructor.

LEWIS J. KRAKAUER, M.D., Clinical Instructor.

MARION L. KRIPPAEHNE, M.D., Clinical Instructor.

MERLE W. KURTZ, M.D., Clinical Instructor.

WILBUR L. LARSON, M.D., Clinical Instructor.

AARNE J. LINDGREN, M.D., Clinical Instructor.

ERNEST T. LIVINGSTONE, M.D., Clinical Instructor.

RAY S. LOBB, M.D., Clinical Instructor.

Laurence K. MacDaniels, M.D., Clinical Instructor.

GORDON L. MAURICE, M.D., Clinical Instructor.

DENNIS E. McCafferty, M.D., Clinical Instructor.

Donald P. McGreevey, M.D., Clinical Instructor.

Norbert E. Medved, M.D., Clinical Instructor.

RUTH L. MERCER, M.A., Clinical Instructor in Dietetics.

ROBERT D. MICHEL, M.D., Instructor.

JOHN J. MURPHY, M.D., Clinical Instructor.

PHILLIP L. NUDELMAN, M.D., Clinical Instructor.

DONALD E. OLSON, M.D., Clinical Instructor.

OTTO C. PAGE, M.D., Clinical Instructor.

JOHN W. PARTRIDGE, M.D., Clinical Instructor.

NORRIS H. PERKINS, M.D., Clinical Instructor.

CARL A. PETERSON, M.D., Clinical Instructor.

BERNARD PIROFSKY, M.D., Instructor.

ROBERT G. PITTENGER, M.D., Clinical Instructor.

CHARLES E. REED, M.D., Clinical Instructor.

OREN R. RICHARDS, JR., M.D., Clinical Instructor.

JAMES A. RILEY, M.D., Clinical Instructor.

ROBERT E. RINEHART, M.D., Clinical Instructor.

WAYNE R. ROGERS, M.D., Clinical Instructor.

LEONARD B. ROSE, M.D., Clinical Instructor.

ROBERT W. SCHNEIDER, M.D., Clinical Instructor.

WILL L. SENDERS, M.D., Clinical Instructor.

NORRIS D. SMITH, M.D., Clinical Instructor.

MARGRET H. Speros, B.A., Clinical Instructor in Experimental Medicine.

John W. Stephens, M.D., Clinical Instructor.

DONALD E. TATUM, M.D., Clinical Instructor.

DUANE R. TAYLOR, M.D., Clinical Instructor.

W. STANLEY WELBORN, M.D., Clinical Instructor.

KENNETH C. WILHELMI, M.D., Clinical Instructor.

CEILOUS L. WILLIAMS, JR., M.D., Clinical Instructor.

RICHARD D. WILSON, M.D., Clinical Instructor.

JAMES V. WOODWORTH, M.D., Clinical Instructor.

JACK H. HUTCHINSON, B.A., Recearch Assistant.

MICHEL D. BAIRD, M.D., Resident.

ROBERT H. BIGLEY, M.D., Resident.

MILES J. EDWARDS, M.D., Resident.

ROBERT H. GRAY, M.D., Resident.

DONALD G. KASSEBAUM, M.D., Resident.

MARION M. LARSEN, M.D., Resident.

HARRY W. MASENHIMER, M.D., Resident.

GEORGE A. PORTER, M.D., Resident.

ROBERT D. WILSON, M.D., Resident.

Allergy

MERLE W. MOORE, M.D., Associate Clinical Professor; Head of Division.

Frank Perlman, M.D., Assistant Clinical Professor.

Roy R. MATTERI, M.D., Clinical Associate.

CHARLES E. REED, M.D., Clinical Instructor.

George M. Robins, M.D., Clinical Instructor.

Cardiology

HERBERT E. GRISWOLD, JR., M.D., Associate Professor; Head of Division.

HANCE F. HANEY, Ph.D., M.D., Professor.

HOMER P. RUSH, M.D., Clinical Professor; Senior Consultant.

ISIDOR C. BRILL, M.D., Associate Clinical Professor.

LEONARD W. RITZMANN, M.D., Associate Clinical Professor.

PHILIP SELLING, M.D., Assistant Clinical Professor.

FRANK UNDERWOOD, M.D., Assistant Clinical Professor.

EDMUND H. BERGER, M.D., Clinical Associate.

CHARLES W. COFFEN, M.D., Clinical Associate.

AUBREY M. DAVIS, M.D., Clinical Associate.

Brent M. Parker, M.D., Clinical Associate.

MARVIN SCHWARTZ, M.D., Clinical Associate.

WILLIAM J. SWETT, M.D., Clinical Associate.

WILLIAM P. GALEN, M.D., Clinical Instructor.

LEONARD B. Rose, M.D., Clinical Instructor.

RALPH B. REAUME, M.D., Irvin Fellow in Cardiology.

Chest Diseases

JOHN E. TUHY, M.D., Assistant Clinical Professor; Head of Division.

WILLIAM S. CONKLIN, M.D., Assistant Clinical Professor.

MORTON GOODMAN, M.D., Assistant Clinical Professor.

DONALD M. PITCAIRN, M.D., Assistant Professor.

JAMES T. Speros, M.D., Assistant Clinical Professor.

WILLIAM COHEN, M.D., Clinical Associate.

JAMES F. MORRIS, M.D., Clinical Associate.

SAMUEL DIACK, M.D., Clinical Instructor.

PETER J. GALANTE, M.D., Clinical Instructor.

LAWRENCE M. LOWELL, M.D., Clinical Instructor.

GORDON L. MAURICE, M.D., Clinical Instructor.

DONALD E. OLSON, M.D., Clinical Instructor.

Diabetes and Metabolism

DANIEL H. LABBY, M.D., Associate Professor; Head of Division.

BLAIR HOLCOMB, M.D., Clinical Professor; Senior Consultant.

RUDOLPH M. CROMMELIN, M.D., Clinical Associate.

HULDRICK KAMMER, M.D., Clinical Associate.

MARCUS M. HORENSTEIN, M.D., Clinical Instructor.

ERNEST T. LIVINGSTONE, M.D., Clinical Instructor.

ROBERT W. SCHNEIDER, M.D., Clinical Instructor.

JOHN W. STEPHENS, M.D., Clinical Instructor.

Endocrinology

MONTE A. GREER, M.D., Associate Professor; Head of Division. CARL G. HELLER, M.D., Ph.D., Associate Clinical Professor.

DANIEL H. LABBY, M.D., Associate Professor.

HULDRICK KAMMER, M.D., Clinical Associate.

ARTHUR L. ROGERS, M.D., Clinical Associate.

KURT W. AUMANN, M.D., Clinical Instructor.

HARMON T. HARVEY, M.D., Clinical Instructor.

ERNEST T. LIVINGSTONE, M.D., Clinical Instructor.

ROBERT W. SCHNEIDER, M.D., Clinical Instructor.

WILLIAM M. LAIDLAW, M.D., Research Associate.

Gastroenterology

George B. Long, M.D., Associate Clinical Professor; Head of Division.

WILLARD F. HOLLENBECK, M.D., Assistant Clinical Professor.

JOHN J. KRYGIER, M.D., Assistant Clinical Professor.

GEORGE A. BOYLSTON, M.D., Clinical Associate.

J. EDWARD FIELD, M.D., Clinical Associate.

CHARLES E. LITTLEHALES, M.D., Clinical Associate.

LENIER ARTHUR LODMELL, M.D., Clinical Associate.

JOHN L. SOELLING, M.D., Clinical Associate.

THOMAS S. HEALY, M.D., Clinical Instructor.

LEWIS J. KRAKAUER, M.D., Clinical Instructor.

NORBERT E. MEDVED, M.D., Clinical Instructor.

JAMES A. RILEY, M.D., Clinical Instructor.

Hematology

EDWIN E. OSGOOD, M.D., Professor; Head of Division.

HANCE F. HANEY, Ph.D., M.D., Professor.

ARTHUR J. SEAMAN, M.D., Associate Professor.

ROBERT D. KOLER, M.D., Assistant Professor.

ROBERT E. MASS, M.D., Clinical Associate.

BERNARD PIROFSKY, M.D., Instructor.

MARGRET H. SPEROS, B.A., Clinical Instructor in Experimental Medicine.

ROBERT D. GOLDMAN, M.D., Resident.

WILLIAM R. NEAL, M.D., Resident.

Neurology

ROY L. SWANK, M.D., Professor; Head of Division.

MERL L. MARGASON, M.D., Clinical Professor; Senior Consultant.

ROBERT S. Dow, M.D., Associate Clinical Professor.

JAMES H. AUSTIN, M.D., Assistant Professor.

JACK H. FELLMAN, Ph.D., Associate.

JANICE R. STEVENS, M.D., Associate.

C. Conrad Carter, M.D., Clinical Instructor.

ROBERT B. JOHNSON, M.D., Clinical Instructor.

Louis Lino, Ph.D., Instructor.

IRA A. MANVILLE, M.D., Clinical Instructor.

AAGOT GRIMSGAARD, Research Associate.

VICTOR MILSTEIN, M.A., Fellow.

HARUOMI NAKAMURA, M.D., Fellow.

PHILIP J. REILLY, M.D., Resident.

Dermatology

THOMAS B. FITZPATRICK, M.D., Ph.D., Professor; Head of Division.

Lyle B. Kingery, M.D., Clinical Professor; Senior Consultant.

FRANK W. CROWE, M.D., Associate Clinical Professor.

JOYLE DAHL, M.D., Associate Clinical Professor.

THOMAS S. SAUNDERS, M.D., Associate Clinical Professor.

SHELDON A. WALKER, M.D., Associate Clinical Professor.

FARRINGTON DANIELS, JR., M.D., M.P.H., Assistant Professor.

LEON F. RAY, M.D., Assistant Clinical Professor.

BRUCE R. CHENOWETH, M.D., Clinical Instructor.

DAVID C. FRISCH, M.D., Clinical Instructor.

JOHN CLIFFTON MASSAR, M.D., Clinical Instructor.

RALPH R. SULLIVAN, M.D., Clinical Instructor. '

WILLIAM L. FOWLKS, Ph.D., Research Associate.

Donne G. Griffith, B.S., Research Assistant.

JAMES DONALD IMBRIE, B.S., Research Assistant.

U. Scott Page, B.S., Research Assistant.

MADHUKAR A. PHATAK, M.S., Research Assistant.

Макото Seiji, M.D., Research Assistant.

Yoshio Yoshida, M.D., Research Assistant.

DONALD W. ACKER, M.D., Resident.

JALAL BAMSHAD, M.D., Resident.

DAVID H. BRUCE, M.D., Resident.

DENNIS D. DAVENPORT, M.D., Resident.

Dental Medicine

HAROLD J. NOYES, D.D.S., M.D., Clinical Professor; Head of Division.

SAMUEL A. BRANDON, D.D.S., Clinical Associate.

WILLIAM R. DAVIS, D.M.D., Clinical Associate.

Donald G. Eland, D.M.D., Clinical Associate.

Frank G. Everett, M.S., D.M.D., M.D., Clinical Associate.

HENRY C. FIXOTT, JR., D.M.D., Clinical Associate.

RICHARD B. KELLER, D.M.D., Clinical Associate.

FRANK O. MIHNOS, D.M.D., Clinical Associate.

Donald R. Porter, D.D.S., Clinical Associate.

DONALD G. REESE, D.M.D., Clinical Associate.

NORMAN H. RICKLES, D.D.S., Clinical Associate.

CHARLES E. SMITH, D.M.D., Clinical Associate.

THEODORE SUHER, M.S., D.M.D., Clinical Associate.

RONALD K. TALL, D.M.D., Clinical Associate.

ROBERT A. BISSETT, D.M.D., Clinical Instructor.

BARNEY C. BYBEE, D.M.D., Clinical Instructor.

GEORGE J. COLLINGS, D.M.D., Clinical Instructor.

J. D. FINLAY, D.M.D., Clinical Instructor.

GEORGE E. GULICK, D.M.D., Clinical Instructor.

THOMAS D. HOLDER, D.M.D., Clinical Instructor.

FLOYD G. MATTSON, D.M.D., Clinical Instructor.

ROBERT D. MERCER, D.M.D., Clinical Instructor.

DUANE R. PAULSON, D.D.S., Clinical Instructor.

ROBERT C. RITTEL, D.M.D., Clinical Instructor.

BHIM S. SAVARA, B.D.S., Clinical Instructor.

WALTER W. SCHAFER, D.M.D., Clinical Instructor.

ROBERT R. SIDDOWAY, D.M.D., Clinical Instructor. M. YAVUZ ELITEZ, D.D.S., Resident.

Radiology

CHARLES T. DOTTER, M.D., Professor; Head of Department. WILLIAM Y. BURTON, M.D., Clinical Professor. LOUIS H. FRISCHE, M.D., Associate Professor. SELMA HYMAN, M.D., Associate Clinical Professor. WAYNE G. ERICKSEN, M.D., Assistant Clinical Professor. MILTON D. HYMAN, M.D., Assistant Clinical Professor. JOHN WAYNE LOOMIS, M.D., Assistant Clinical Professor. JAMES R. RAINES, M.D., Assistant Clinical Professor. HAROLD TIVEY, M.D., Assistant Professor. CLIFFORD V. ALLEN, M.D., Clinical Associate. JAMES B. HAWORTH, M.D., Clinical Associate. VINCENT C. HINCK, M.D., Associate. ARTHUR F. HUNTER, M.D., Clinical Associate. J. ROBERT LEE, M.D., Clinical Associate. SHERMAN E. REES, M.D., Clinical Associate. IVAN M. WOOLLEY, M.D., Clinical Associate. NORMAN L. BLINE, M.D., Clinical Instructor. CHARLES T. JESSELL, M.D., Clinical Instructor. J. ROBERT LEE, M.D., Clinical Instructor. GREGORY B. NICHOLS, M.D., Clinical Instructor. ARTHUR L. OVREGAARD, M.D., Clinical Instructor. FRED C. SHIPPS, M.D., Clinical Instructor. HILDA E. DRUM, R.T., Instructor in Radiological Technique. Doris C. Smith, R.T., Instructor in Radiological Technique. JOHN L. HOWIESON, M.D., Research Fellow. ESTHER J. FURNAS, M.D., Resident. ROBERT S. MILLER, M.D., Resident. RONALD W. PHILIPS, M.D., Resident. JACK R. RABENBERG, M.D., Resident. JOHN F. SIEGRIST, M.D., Resident. KURT R. STRAUBE, M.D., Resident.

Psychiatry

George Saslow, Ph.D., M.D., Professor; Head of Department. Henry H. Dixon, M.D., Clinical Professor.
Herman A. Dickel, M.D., Associate Clinical Professor.
John W. Evans, M.D., Assistant Clinical Professor.
Kenneth D. Gaver, M.D., Assistant Professor.
Gerhard B. Haugen, M.D., Assistant Clinical Professor.
Wendell H. Hutchens, M.D., Assistant Clinical Professor.
James G. Shanklin, M.D., Assistant Clinical Professor.
DeWitt C. Burkes, M.D., Clinical Associate.
Siegfried R. Berthelsdorf, M.D., Clinical Instructor.
Ivor M. Campbell, M.D., Clinical Instructor.
John Haskins, M.D., Clinical Instructor.
Norman M. Janzer, M.D., Clinical Instructor.

RUTH JENS, M.D., Clinical Instructor.

Joseph R. Langdon, M.D., Clinical Instructor.

DUNCAN A. McLauchlan, M.D., Clinical Instructor.

CARL V. MORRISON, M.D., Clinical Instructor.

C. RUSSELL PARKER, M.D., Clinical Instructor.

Frank Sisler, M.D., Clinical Instructor.

Rogers J. Smith, M.D., Clinical Instructor.

HARRY E. SPRANG, M.D., Clinical Instructor.

WILLIAM W. THOMPSON, M.D., Clinical Instructor.

JOHN H. WATERMAN, M.D., Clinical Instructor.

PAUL S. WOLFE, M.D., Clinical Instructor.

LENA KENIN, M.D., Resident.

WAYNE M. PIDGEON, M.D., Resident.

Child Psychiatry

CHARLES BRADLEY, M.D., Associate Professor; Head of Division.
MARVIN GREENBAUM, Ph.D., Assistant Professor of Clinical Psychology.
THELMA M. DANILSON, M.S.S., Instructor in Psychiatric Social Work.

Medical Psychology

JOSEPH D. MATARAZZO, Ph.D., Professor; Head of Division.

MARVIN GREENBAUM, Ph.D., Assistant Professor.

RUTH G. MATARAZZO, Ph.D., Assistant Professor.

ROBERT W. ZASLOW, Ph.D., Assistant Professor.

ALLEN H. PARKER, Ph.D., Clinical Instructor.

JEANNE S. PHILLIPS, Ph.D., Instructor.

LEO A. PIROJNIKOFF, Ph.D., Instructor.

BERNADENE V. ALLEN, M.A., Research Assistant.

DAVID W. CORTHELL, B.A., Fellow.

ROBERT M. TAYLOR, M.S., Research Fellow.

Public Health and Preventive Medicine

ADOLPH WEINZIRL, M.D., Professor; Head of Department.

CARL E. HOPKINS, Ph.D., Associate Professor.

HAROLD M. ERICKSON, M.D., Assistant Clinical Professor.

F. Sydney Hansen, M.D., Clinical Instructor.

THOMAS L. MEADOR, M.D., Clinical Instructor.

SAMUEL B. OSGOOD, M.D., Clinical Instructor.

RICHARD H. WILCOX, M.D., Clinical Instructor.

Surgery

General Surgery

CLARE G. PETERSON, M.D., Professor; Acting Head of Department.

ARTHUR C. JONES, M.D., Clinical Professor of Physical Medicine.

WILLIAM K. LIVINGSTON, M.D., Professor.

EUGENE W. ROCKEY, M.D., Clinical Professor.

DEAN B. SEABROOK, M.D., Clinical Professor.

JOHN C. ADAMS, M.D., Associate Clinical Professor.

ALLEN M. BOYDEN, M.D., Associate Clinical Professor.

LESTER R. CHAUNCEY, M.D., Associate Clinical Professor.

WILLIAM S. CONKLIN, M.D., Associate Clinical Professor.

CHARLES E. GURNEY, M.D., Associate Clinical Professor.

CLIFFORD E. HARDWICK, M.D., Associate Clinical Professor. KARL H. MARTZLOFF, M.D., Associate Clinical Professor. MATTHEW McKirdie, M.D., Associate Clinical Professor. OLIVER M. NISBET, M.D., Associate Clinical Professor. MILLARD S. ROSENBLATT, M.D., Associate Clinical Professor. EDWARD W. St. PIERRE, M.D., Associate Clinical Professor. ROBERT A. WISE, M.D., Associate Clinical Professor. CLARENCE W. BRUNKOW, M.D., Assistant Clinical Professor. RALPH M. DODSON, M.D., Assistant Clinical Professor. MARTIN A. HOWARD, M.D., Assistant Clinical Professor. RUSSELL L. JOHNSRUD, M.D., Assistant Clinical Professor. WILLIAM W. KRIPPAEHNE, M.D., Assistant Professor. Donald R. Laird, M.D., Assistant Clinical Professor. LAWRENCE M. LOWELL, M.D., Assistant Clinical Professor. JOSEPH W. NADAL, M.D., Assistant Clinical Professor. JOHN P. TROMMALD, M.D., Assistant Clinical Professor. WERNER E. ZELLER, M.D., Assistant Clinical Professor. ADALBERT G. BETTMAN. M.D., Clinical Associate. DARRELL C. BOLLAM, M.D., Clinical Associate. WINFRED H. BUEERMAN, M.D., Clinical Associate. JOHN G. P. CLELAND, M.D., Clinical Associate. ARCH DIACK, M.D., Clinical Associate. THOMAS J. Fox, M.D., Clinical Associate. JOHN M. GUISS, M.D., Clinical Associate. ROBERT W. MARCUM, M.D., Clinical Associate. JOHN KARL POPPE, M.D., Clinical Associate. Joseph M. Roberts, M.D., Clinical Associate. DAN N. STEFFANOFF, M.D., Clinical Associate. HARVEY W. BAKER, M.D., Clinical Instructor. JOHN W. BASSETT, M.D., Clinical Instructor. JACK E. BATTALIA, M.D., Clinical Instructor. HARRY G. BECKWITH, M.D., Clinical Instructor. Frederic H. Bentley, M.D., Clinical Instructor. STANLEY F. BERGQUIST, M.D., Clinical Instructor. BRUCE H. BEST, M.D., Clinical Instructor. WEBSTER C. BROWN, M.D., Clinical Instructor. JAMES E. BUCKLEY, M.D., Clinical Instructor. NATHAN J. CAMPBELL, M.D., Clinical Instructor. SANTE D. CANIPAROLI, M.D., Clinical Instructor. KEITH M. CLISBY, M.D., Clinical Instructor. ROBERT M. COFFEY, M.D., Clinical Instructor. HUGH DONALD COLVER, M.D., Clinical Instructor. PETER DEWITT, M.D., Clinical Instructor. ZANLEY C. EDELSON, M.D., Clinical Instructor. LESTER H. EISENDORF, M.D., Clinical Instructor. WILLIAM M. GARNJOBST, M.D., Clinical Instructor. LEROY E. GROSHONG, M.D., Clinical Instructor. RUSSELL G. GUSTAVSON, M.D., Clinical Instructor. BERNARD P. HARPOLE, M.D., Clinical Instructor. JOHN F. HAYES, M.D., Clinical Instructor. Toshio Inahara, M.D., Clinical Instructor.

REINHOLD KANZLER, M.D., Clinical Instructor.

J. Dunn Kavanaugh, M.D., Clinical Instructor.

G. Prentiss Lee, M.D., Clinical Instructor.

VERNER V. LINDGREN, M.D., Clinical Instructor.

MILTON C. LOCKWOOD, M.D., Clinical Instructor.

R. Kent Markee, M.D., Clinical Instructor.

DAVID C. MASON, M.D., Clinical Instructor.

WILLARD L. MATHIESON, M.D., Clinical Instructor.

RAYMOND E. MOORE, M.D., Clinical Instructor in Physical Medicine.

WALTER R. MUNROE, M.D., Clinical Instructor.

H. MINOR NICHOLS, M.D., Clinical Instructor.

FRANK B. PACKARD, M.D., Clinical Instructor.

ROBERT W. PATTON, M.D., Clinical Instructor.

IRVING PUZISS, M.D., Clinical Instructor.

MELVIN M. REEVES, M.D., Clinical Instructor.

WALTER C. REINER, M.D., Clinical Instructor.

EDWARD E. RIPPEY, M.D., Clinical Instructor.

WILLIAM M. ROSENBAUM, M.D., Clinical Instructor.

WILLARD D. ROWLAND, M.D., Clinical Instructor.

Ambrose B. Shields, M.D., Clinical Instructor.

NATHAN SHLIM, M.D., Clinical Instructor.

PHILIP A. SNEDECOR, M.D., Clinical Instructor.

CHARLES H. SPARKS, M.D., Clinical Instructor.

ALBERT STARR, M.D., Instructor.

RUDOLPH B. STEVENS, M.D., Clinical Instructor.

WILLIAM R. SWEETMAN, M.D., Clinical Instructor.

ROBERT H. TINKER, M.D., Clinical Instructor.

ALVIN O. UHLE, M.D., Clinical Instructor.

EDWARD E. WAYSON, M.D., Clinical Instructor.

JAMES W. WILEY, M.D., Clinical Instructor.

NATHANIEL D. WILSON, M.D., Clinical Instructor.

GREGG D. WOOD, M.D., Clinical Instructor.

ROBERT LAMAR ANDERSON, M.D., Resident.

Daniel J. Brose, M.D., Resident.

GUY W. GORRELL, JR., M.D., Resident.

RODERICK L. JOHNSON, M.D., Resident.

ROBERT W. KENDALL, M.D., Resident.

GARY H. LEAVERTON, M.D., Resident.

DONALD F. MAHNKE, M.D., Resident.

LESTER J. SCHWAEGLER, JR., M.D., Resident.

GEORGE C. SHONAT, M.D., Resident.

ROBERT W. TOON, M.D., Resident.

Urology

CLARENCE V. HODGES, M.D., Professor; Head of Division.

J. Scott Gardner, M.D., Associate Clinical Professor.

JOHN R. HAND, M.D., Associate Clinical Professor.

THOMAS R. MONTGOMERY, M.D., Associate Clinical Professor.

THOMAS A. DAVIS, M.D., Clinical Associate.

G. Donald Beardsley, M.D., Clinical Instructor.

CHARLES E. CATLOW, JR., M.D., Clinical Instructor.

MARION A. CLARK, M.D., Clinical Instructor.

EMERSON J. COLLIER, M.D., Clinical Instructor.
SABERT A. HOTT, JR., M.D., Clinical Instructor.
JOHN F. LARSELL, M.D., Clinical Instructor.
THEODORE H. LEHMAN, M.D., Instructor.
CURTIS A. MACFARLANE, M.D., Clinical Instructor.
DAVID P. PAULL, M.D., Clinical Instructor.
ARNOLD RUSTIN, M.D., Clinical Instructor.
GERALD W. SCHWIEBINGER, M.D., Clinical Instructor.
JOHN G. VANDENBERG, M.D., Clinical Instructor.
HUGK V. ANDERSON, M.D., Resident.
ROBERT B. GREENE, JR., M.D., Resident.
ROBERT J. MOORE, M.D., Resident.
RALPH V. STAGNER, M.D., Resident.

Anesthesiology

Frederick P. Haugen, M.D., Professor; Head of Division. Donald P. Dobson, M.D., Clinical Instructor.
John C. Roth, M.D., Instructor.
Rex J. Underwood, M.D., Instructor.
Robert L. Allison, M.D., Resident.
Robert Lynn Anderson, M.D., Resident.
Robert M. Gilbert, M.D., Resident.
James V. Harber, M.D., Resident.
Robert L. James, M.D., Resident.
Frank E. Mather, M.D., Resident.

Orthopedic Surgery

WILLIAM E. SNELL, M.D., Associate Professor; Head of Division. LEO SHERMAN LUCAS, M.D., Clinical Professor; Senior Consultant. HARRY C. BLAIR, M.D., Associate Clinical Professor. CARL ELMER CARLSON, M.D., Associate Clinical Professor. E. GEORGE CHUINARD, M.D., Associate Clinical Professor. LAWRENCE NOALL, M.D., Associate Clinical Professor. FRANK B. SMITH, M.D., Associate Clinical Professor. Joe Brady Davis, M.D., Assistant Clinical Professor. GURNEY A. KIMBERLEY, M.D., Assistant Clinical Professor. JOHN F. ABELE, M.D., Clinical Associate. RODERICK E. BEGG, M.D., Clinical Associate. RICHARD F. BERG, M.D., Clinical Associate. GEORGE W. COTTRELL, M.D., Clinical Associate. HAROLD E. DAVIS, M.D., Clinical Associate. Joseph H. Gill, M.D., Clinical Associate. RICHARD J. HOPKINS, M.D., Clinical Associate. ORVILLE N. JONES, M.D., Clinical Associate. JAMES A. MASON, M.D., Clinical Associate. FAULKNER A. SHORT, M.D., Clinical Associate. THOMAS J. BOYDEN, M.D., Clinical Instructor. ROBERT E. BUCKMASTER, M.D., Clinical Instructor. PAUL CAMPBELL, M.D., Clinical Instructor. WINFRED H. CLARKE, M.D., Clinical Instructor. HOWARD L. CHERRY, M.D., Clinical Instructor. LAURENCE J. COHEN, M.D., Clinical Instructor.

ROBERT J. FRY, M.D., Clinical Instructor. CALVIN E. GANTENBEIN, M.D., Clinical Instructor. LAURENCE R. LANGSTON. M.D., Clinical Instructor. W. ROBERT McMurray, M.D., Clinical Instructor. ROLLAND C. MERRIFIELD, M.D., Clinical Instructor. SAMUEL OSBORN, M.D., Clinical Instructor. ROBERT M. RANKIN, M.D., Clinical Instructor. EDWIN G. ROBINSON, M.D., Clinical Instructor. DONALD B. SLOCUM, M.D., Clinical Instructor. RODNEY K. BEALS, M.D., Resident. RAYMOND A. CASE, M.D., Resident. THOMAS A. EDWARDS, M.D., Resident. CHARLES A. FAGAN, M.D., Resident. CALVIN H. KIEST, JR., M.D., Resident. NORMAN D. LOGAN, M.D., Resident. RALPH E. PETERSON, M.D., Resident.

Neurosurgery

GEORGE M. AUSTIN, M.D., Professor; Head of Division. John Raaf, M.D., Professor; Senior Consultant. Edward W. Davis, M.D., Clinical Associate. Edward K. Kloos, M.D., Clinical Associate. Kenneth E. Livingston, M.D., Clinical Associate. Bruce N. Kvernland, M.D., Clinical Instructor. Harold D. Paxton, M.D., Clinical Instructor. Ray V. Grewe, M.D., Clinical Instructor. John G. Roth, M.D., Instructor. Fred D. Grewe, M.D., Resident. Masashichi Kawano, M.D., Resident. Jack E. Sinclair, M.D., Resident.

Ophthalmology

KENNETH C. SWAN, M.D., Professor; Head of Department. AUGUSTUS B. DYKMAN, M.D., Clinical Professor. E. MERLE TAYLOR, M.D., Clinical Professor. LEONARD CHRISTENSEN, M.D., Associate Professor. JOHN E. HARRIS, M.D., Associate Professor. ROBERT V. HILL, M.D., Assistant Clinical Professor. JOHN P. KEIZER, M.D., Assistant Clinical Professor. THOMAS E. TALBOT, M.D., Assistant Clinical Professor. ROBERT W. ZELLER, M.D., Assistant Clinical Professor. ROBERT E. FISCHER, M.D., Clinical Associate. ALFRED J. KREFT, M.D., Clinical Associate. GEORGE P. LYMAN, M.D., Clinical Associate. HENRY E. SCHLEGEL, M.D., Clinical Associate. PAUL F. BAILEY, M.D., Clinical Instructor. RICHARD E. MARKLEY, M.D., Clinical Instructor. EDWARD N. McLEAN, M.D., Clinical Instructor. JOSEPH I. MORELAND, M.D., Clinical Instructor. LETA B. GEHRSITZ, M.D., Research Associate. ELLEN L. TALMAN, Ph.D., Research Associate.

K. Nolan Tanner, Ph.D., Research Associate.

KENNETH M. GILES, B.S., Frank Ralston Student Assistant.

ALBERT EUGENE CARLSON, M.D., Resident.

ROBERT C. COWGER, M.D., Resident.

CLYDE H. DUVALL, JR., M.D., Resident.

Roy J. Ellsworth, M.D., Resident.

WALTER R. ENDERS, M.D., Resident.

Don W. Lim, M.D., Resident.

THEODORE E. WILLS, M.D., Resident.

Otology, Rhinology, and Laryngology

GUY L. BOYDEN, M.D., Clinical Professor; Head of Department.

Paul Bailey, M.D., Clinical Professor.

DAVID D. DEWEESE, M.D., Clinical Professor.

ROBERT M. HANSEN, M.D., Clinical Professor.

LESTER T. JONES, M.D., Clinical Professor.

GEORGE E. CHAMBERLAIN, M.D., Associate Clinical Professor.

WILBUR M. BOLTON, M.D., Assistant Clinical Professor.

CLIFFORD KUHN, M.D., Assistant Clinical Professor.

Bruce L. Titus, M.D., Assistant Clinical Professor.

LEWIS W. JORDAN, M.D., Clinical Associate.

PAUL B. MYERS, M.D., Clinical Associate.

GEORGE C. SAUNDERS, M.D., Clinical Associate.

T. GLEN TEN EYCK, M.D., Clinical Associate.

HENRY VICTOR ADIX, M.D., Clinical Instructor.

CANFIELD BEATTIE, M.D., Clinical Instructor.

Donald H. Holden, M.D., Clinical Instructor.

DONALD C. METTLER, M.D., Clinical Instructor.

JACK B. MILLER, M.D., Clinical Instructor.

MAX SIMONS, M.D., Clinical Instructor.

KENNETH D. SMYTH, M.D., Clinical Instructor. RALPH N. WESTFALL, M.D., Clinical Instructor.

PATRICK J. DOYLE, M.D., Resident.

Byron L. Fortsch, M.D., Resident.

ALEXANDER E. PETROFF, M.D., Resident.

Obstetrics and Gynecology

RALPH C. BENSON, M.D., Professor; Head of Department.

HOWARD C. STEARNS, M.D., Clinical Professor; Senior Consultant.

RAPHAEL B. DURFEE, M.D., Associate Professor.

CLIFFORD FEARL, M.D., Associate Clinical Professor.

Gunnar E. C. Nelson, M.D., Associate Clinical Professor.

GOODRICH C. SCHAUFFLER, M.D., Associate Clinical Professor.

HOWARD J. TATUM, M.D., Associate Professor.

WILLIAM M. WILSON, M.D., Associate Clinical Professor.

RODERICK C. BLATCHFORD, M.D., Assistant Clinical Professor.

Отто R. Еміс, M.D., Assistant Professor.

CHARLES F. MONTAGUE, M.D., Assistant Professor.

DUNCAN R. NEILSON, M.D., Assistant Clinical Professor.

RONALD P. NEILSON, M.D., Assistant Clinical Professor.

Frank Shubeck, M.D., Assistant Professor. THEODORE M. BISCHOFF, M.D., Clinical Instructor. MELVIN W. BREESE, M.D., Clinical Instructor. CHARLES L. CHAVIGNY, M.D., Clinical Instructor. C. Louise Clancy, M.D., Clinical Instructor. OTTO R. EMIG. M.D., Clinical Instructor. RICHARD W. FRANKLIN, M.D., Clinical Instructor. W. Ronald Frazier, M.D., Clinical Instructor. REMY W. FULSHER, M.D., Clinical Instructor. ROBERT B. GREENE, M.D., Clinical Instructor. GEORGE S. HARA, M.D., Clinical Instructor. WILLIAM L. HARTMANN, M.D., Clinical Instructor. PHILIP H. HENDERSON, JR., M.D., Clinical Instructor. WILLIAM W. HICKS, JR., M.D., Clinical Instructor. ROBERT C. JACKSON, M.D., Clinical Instructor. DAVID W. JAMES, M.D., Clinical Instructor. GERALD E. KINZEL, M.D., Clinical Instructor. George H. Lage, M.D., Clinical Instructor. F. Keith Markee, M.D., Clinical Instructor. ALFRED N. MARSHALL, M.D., Clinical Instructor. JOHN O. McCALL, Jr., M.D., Clinical Instructor. JOSEPH C. MITCHELL, M.D., Clinical Instructor. DAVID W. MOORE, M.D., Clinical Instructor. MAX H. PARROTT, M.D., Clinical Instructor. JESSE L. RAY, M.D., Clinical Instructor. OUINTEN SCHERMAN, M.D., Clinical Instructor. GORDON N. SMITH, M.D., Clinical Instructor. WILLIAM O. THOMAS, M.D., Clinical Instructor. JAMES M. WHITLEY, M.D., Clinical Instructor. CLARENCE BENSON, M.D., Resident. RICHARD N. BOLTON, M.D., Resident. JULES V. NAPIER, M.D., Resident. ERNEST A. WATERMAN, M.D., Resident.

Pediatrics

Joseph B. Bilderback, M.D., Clinical Professor.
S. Gorham Babson, M.D., Associate Clinical Professor.
Charles Bradley, M.D., Associate Professor.
Morris L. Bridgeman, M.D., Associate Clinical Professor.
George W. Dana, M.D., Associate Professor.
Scott Goodnight, M.D., Associate Clinical Professor.
Richard L. Sleeter, M.D., Associate Professor.
Carl G. Ashley, M.D., Assistant Clinical Professor.
John H. Benward, M.D., Assistant Clinical Professor.
William M. Clark, Jr., M.D., Assistant Professor.
Quinten W. Cochran, M.D., Assistant Professor.
Rudolf C. H. Engel, M.D., Assistant Professor.
Walter A. Goss, M.D., Assistant Clinical Professor.
John A. Larrabee, M.D., Assistant Clinical Professor.
Herold S. Lillywhite, Ph.D., Assistant Professor of Speech Pathology.

ALLAN J. HILL, JR., M.D., Professor; Head of Department.

JAMES E. ODELL, M.D., Assistant Professor.

DONALD E. PICKERING, M.D., Assistant Professor.

EDGAR M. RECTOR, M.D., Assistant Clinical Professor.

PAUL E. SHICK, JR., M.D., Assistant Clinical Professor.

LENDON H. SMITH, M.D., Assistant Clinical Professor.

ALVIN D. WERT, M.D., Assistant Clinical Professor.

JAMES P. WHITTEMORE, M.D., Assistant Clinical Professor.

DANIEL K. BILLMEYER, M.D., Clinical Instructor.

JOHN W. BUSSMAN, M.D., Clinical Instructor.

DELBERT A. FISHER, M.D., Instructor.

JOHN R. HANSEN, M.D., Clinical Instructor.

JOSEPH T. HART, M.D., Clinical Instructor.

EDWARD L. HENDRICKS, M.D., Clinical Instructor.

PETER H. HURST, M.D., Clinical Instructor.

Brace I. Knapp, M.D., Clinical Instructor.

GLENN E. LEMBERT, M.D., Clinical Instructor.

DAVID W. MACFARLANE, M.D., Clinical Instructor.

JOHN ARTHUR MAY, M.D., Clinical Instructor.

ROBERT J. MEECHAN, M.D., Instructor.

VICTOR D. MENASHE, M.D., Instructor.

GEORGE A. NASH, M.D., Clinical Instructor.

ROBERT C. SCHAAN, M.D., Instructor.

GEORGE J. SCHUNK, M.D., Clinical Instructor.

WILLIAM M. SNOOK, M.D., Clinical Instructor.

JOHN L. STEVENSON, M.D., Clinical Instructor.

SARAH E. STEWART, M.D., Clinical Instructor.

CLEMENS W. VAN ROOY, M.D., Clinical Instructor.

CHARLES VARGA, M.D., Clinical Instructor.

GEORGE F. WALLIKER, JR., M.D., Clinical Instructor.

JOHN R. BERRY, M.D., Resident.

JOSEPH V. BRAZIE, M.D., Resident.

JAMES E. ELLIOTT, M.D., Resident.

DONALD F. KELLY, M.D., Resident.

MAX J. STEPHENSON, M.D., Resident.

University of Oregon Medical School Hospitals and Clinics

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

CHARLES N. HOLMAN, M.D., Associate Dean, Medical Director and Administrator. JARVIS GOULD, M.D., Assistant Medical Director and Assistant Administrator.

MYRON R. GROVER, M.D., Assistant Medical Director.

WILLIAM A. ZIMMERMAN, B.S., Assistant Administrator.

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

GEORGE M. AUSTIN, M.D., Chief of Surgery Neurological Service. RALPH C. BENSON, M.D., Chief of Obstetrical and Gynecological Service. GUY L. BOYDEN, M.D., Chief of Otolaryngological Service.

WILLIAM S. CONKLIN, M.D., Chief of Thoracic Surgical Service.

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

THOMAS B. FITZPATRICK, M.D., Chief of Dermatological Service.

RAYMOND D. GRONDAHL, M.D., Chief of Clinical Pathological Service.

Frederick P. Haugen, M.D., Chief of Anesthesiology Service.

ALLAN J. HILL, JR., M.D., Chief of Pediatric Service.

CLARENCE V. HODGES, M.D., Chief of Urological Service.

WARREN C. HUNTER, M.D., Chief of Pathological Service.

ARTHUR C. JONES, M.D., Chief of Physical Medicine.

HOWARD P. LEWIS, M.D., Chief of Medical Service.

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

CLARE G. PETERSON, M.D., Acting Chief of Surgical Service.

GEORGE SASLOW, M.D., Chief of Psychiatric Service.

WILLIAM E. SNELL, M.D., Chief of Orthopedic 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.

GRACE BLACK, O.T., Occupational Therapist.

A. J. CLEMONS, Superintendent of Physical Plant.

HILDA E. DRUM, R.T., Chief X-Ray Technician.

CLARENCE HULTGREN, M.A., P.T., Chief Physical Therapist.

LAURA P. MARTIN, R.N., C.R.L., Chief Record Librarian.

MARJORIE P. MAXWELL, B.A., M.T., Chief Medical Technologist.

MARJORIE R. MERRICK, B.S., Chief of Admitting Service.

Joseph N. Genoud, Ph.G., 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 E. RAWLINSON, B.S., R.N., Medical Psychiatric Supervisor.

EVOYNE JOYNER, R.N., Auxiliary Personnel Supervisor.

ELEANOR MALLORY, R.N., Surgery Supervisor.

EVELYN BARTON, R.N., Night Supervisor.

RUTH REMLY, R.N., Evening Supervisor.

THELMA CROSLAND, R.N., Assistant Night Supervisor.

PAULINE ANDERSON, B.S., R.N., Assistant Evening Supervisor.

KARLA BERRIER, R.N., Head Nurse.

DOROTHY CAHILL, R.N., Head Nurse.

BEATRICE DUFFY, B.S., R.N., Head Nurse.

HELEN FOUNTAIN, R.N., Head Nurse.

FREDERICKA GRABLE, R.N., Head Nurse.

BETTY Jo Eddins, R.N., Head Nurse.

Lois Hart, B.S., R.N., Head Nurse.

ADA HOKE, R.N., Head Nurse.

ESTHER KELLY, R.N., Head Nurse.

REGINA MOCKMORE, B.S., R.N., Head Nurse.

MARY TRIPP, R.N., Head Nurse.

MARIE D. CLAPP, B.S., R.N., Admitting Supervisor.

GLEN F. CRITESER, Laundry Manager.

MAXINE FREEMAN, Executive Housekeeper. MARGARET ORTH, B.S., Dietitian. ESTHER J. ROHRER, M.A., Credit Supervisor.

General Outpatient Service

GWYNN C. BRICE, Assistant Director.

MARJORIE R. MERRICK, B.S., Chief Admitting Officer.

MARIAN W. PARSELL, B.S., R.N., Director of Nursing Service.

GERALDINE F. BARDY, B.S., Dietitian.

Multnomah Hospital

JARVIS GOULD, M.D., Administrator and Assistant Medical Director. GALE RANKIN, R.N., Director of Nursing. MARGARET Fox, R.N., Assistant Director of Nurses. BARBARA BROWNE, B.S., R.N., Supervisor. PATRICIA GRAVEN, R.N., Supervisor. Ardys Hokeness, R.N., Supervisor. LAVERNE HONEY, R.N., Evening Supervisor. LORRAINE NELSON, B.S., R.N., Clinical Instructor. JUNE SATCHFIELD, B.S., R.N., Evening Supervisor. ALICE SHARF, R.N., Surgical Supervisor. EMMA H. McWilliams, R.N., Night Supervisor. JEAN CALDWELL, B.S., R.N., Head Nurse. LYN HARTLEY, B.S., R.N., Head Nurse. ESTHER HENDERSON, R.N., Head Nurse. Joan Naysmith, R.N., Head Nurse. LEANN POOLE, R.N., Head Nurse. JEAN SCHROPFER, R.N., Head Nurse. BERNICE SETERE, B.S., R.N., Head Nurse, JOYCE VERCELLINO, R.N., Head Nurse. BEVERLY WARD, R.N., Head Nurse. DOROTHY YOSHITOMI, B.S., R.N., Head Nurse.

HELEN COLGAN, Ph.G., Pharmacist.
HENRY L. DOENEKA, Chief Engineer.
WILLIAM FOUCH, Laundry Manager.
VERNA JOHNSON, R.N., Office Supervisor.
RAMONA MCAFEE, B.S., R.N., Housekeeper.
RUTH MERCER, M.A., Dietitian, Clinical Instructor in Dietetics.

Tuberculosis Hospital

James T. Speros, M.D., Assistant Medical Director and Director of Outpatient Clinic.

BARBARA HIATT, M.S., R.N., Superintendent.

Elsa Swartz, R.N., Supervisor.

JACKLYN PROKOPOVICH, R.N., Evening Supervisor.

NELLIE WHIPPLE, R.N., Night Supervisor.

LUCILLE DORRIS, R.N., Head Nurse.

MARIAN GREEN, B.S., R.N., Head Nurse.

MARGARET RYAN, R.N., Head Nurse.

MADELYN HABIGER, B.S., Dietitian.

Visiting Physicians' Service

RANDALL WHITE, M.D., Multnomah County Physician.

HENRY B. BALLANTYNE, M.D., Physician.

C. W. Cotterell, M.D., Physician.

HAROLD DOBBIN, M.D., Physician.

Anton D. Elmer, M.D., Physician.

JAMES E. HOLLAND, M.D., Physician.

DONALD P. McGreevey, M.D., Physician.

GORDON N. SMITH, M.D., Physician.

K. RONALD SMITH, M.D., Physician.

Oregon Psychiatric Services for Children State Child Guidance Extension

CHARLES BRADLEY, M.D., Associate Professor of Pediatrics and Psychiatry; Director.

MARVIN GREENBAUM, Ph.D., Assistant Professor of Clinical Psychology.

THELMA M. DANILSON, M.S.S., Instructor in Psychiatric Social Work.

Crippled Childen's Division

RICHARD L. SLEETER, M.D., Director.

VICTOR D. MENASHE, Ph.D., Assistant Director.

HEROLD S. LILLYWHITE, Ph.D., Speech and Hearing Consultant.

HEBRERT E. GRISWOLD, JR., M.D., Cardiac Consultant,

WILLIAM E. SNELL, M.D., Orthopedic Consultant.

ALBERT STARR, M.D., Instructor in Surgery.

ROBERT W. ZASLOW, Ph.D., Clinical Psychologist.

GLADYS BELL, A.B., Medical Social Work Consultant.

RUTH W. SPOERLI, M.S.S., Medical Social Work Consultant.

DOROTHY M. PRINZING, M.A., R.N., R.P.T., Orthopedic Nursing Consultant.

MARVIN GREENBAUM, Ph.D., Consultant in Clinical Psychology.

DORIS CARR, B.S., R.P.T., Physical Therapist.

MARCHETTA ALLEN, B.S., Speech Consultant.

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

MARGARET A. COSTELLO, Administrative Assistant.

Cerebral Palsy Project (Collaborating Faculty Members)

WILLIAM M. CLARK, JR., M.D., Assistant Professor of Pediatrics.

Отто R. Еміс, M.D., Assistant Professor of Pathology and Obstetrics and Gynecology.

RUDOLF C. H. ENGEL, M.D., Assistant Professor of Pediatrics.

LEO A. PIROJNIKOFF, Ph.D., Instructor in Medical Psychology.

ROBERT C. SCHAAN, M.D., Instructor in Pediatrics.

FRANK SHUBECK, M.D., Assistant Professor of Obstetrics and Gynecology.

Howard J. Tatum, M.D., Associate Professor of Obstetrics and Gynecology.

ROBERT W. ZASLOW, Ph.D., Assistant Professor of Medical Psychology.

KATHERINE S. FRENCH, Ph.D., Research Associate.

Enrollment and Degrees

Degrees Conferred June 13, 1958

Doctor of Medicine

GRADUATE	Internship
Donald Vincent Adams	St. Vincent's Hospital, Portland, Ore.
	Providence Hospital, Portland, Ore,
Ronald Kay Arbon	San Bernardino County Charity Hospital, San Bernardino, Calif.
Shelby Hugh Atchley, Tr.	
Joseph Wainwright Ball	Orange County General Hospital, Orange, Calif.
John Robert Barnes	Orange County General Hospital, Orange, Calif. University of Oregon Medical School
	Haspitals and Clinias Portland Ora
Robert Charles Black	United States Naval Hospital, Oakland, Calif.
Thomas Gerard Boland	Sacramento County Hospital, Sacramento, Calif.
William John Brady	District of Columbia General Hospital, Washington, D.C.
Bryce Divon Breitenstein Tr	Los Angeles County Hospital, Los Angeles. Calif.
Peter RoDine Carter	
Tetel Bobine Carter	Hospitals and Clinics, Portland, Ore.
Donald Lookhand Claland	
Donaid Excelled Clerand	Hospitals and Clinics, Portland, Ore.
Dorothy Francina Comey	University of Oregon Medical School
Dotothy Francine Coolley	Hospitals and Clinics, Portland, Ore,
Stanhan Francist Com	Good Samaritan Hospital, Portland, Ore.
William I sound Do Dole	
	Highland-Alameda County Hospital, Oakland, Calif.
	St. Vincent's Hospital, Portland, Ore.
William Educad Daing To	University of Oregon Medical School
william Edward Drips, Jr	Hospitals and Clinics, Portland, Ore.
Dittie Dates Francisco	Santa Clara County Hospital, San Jose, Calif.
Day I am I Fall a	
	Fitzsimmons Army Hospital, Denver, Colo.
	Highland-Alameda County Hospital, Oakland, Calif
	United States Naval Hospital, San Diego, Calif.
Careld Wiendamus Hadran	
Geraid Nicodemus Hecker	Hospitals and Clinics, Portland, Ore.
Laurence Day Heisels	Providence Hospital, Portland, Ore.
Vannath Warran Hiertauana	Gorgas Hospital, Balboa Heights, C. Z.
Anthun Unner Halmbon	United States Naval Hospital, Oakland, Calif.
	San Joaquin General Hospital, French Camp, Calif.
Otto Louis Loubdon	United States Public Health Service Hospital, Norfolk, Virginia
	Lettermen Army Hospital, San Francisco, Calif.
Don Money Money	Good Samaritan Hospital, Portland, Ore.
	Doctors Hospital, Seattle, Wash.
	General Rose Memorial Hospital, Denver, Colo.
	Sacramento County Hospital, Sacramento, Calif.
	San Bernardino County Charity Hospital, San Bernardino, Calif.
	Stanford University Hospitals, San Francisco, Calif.
	Union Memorial Hospital, Baltimore, Md.
Edward Hal Marchy	District of Columbia General Hospital, Washington, D.C.
	Good Samaritan Hospital, Portland, Ore.
	Providence Hospital, Portland, Ore.
James Ciair Newman	General Rose Memorial Hospital, Denver, Colo.
	Receiving Hospital, Detroit, Mich.
	United States Naval Hospital, Pensacola, Florida
Edward Mansen Lattison	Hospitals and Clinics, Portland, Ore.
Ralph Walda Paul	San Bernardino County Charity Hospital, San Bernardino, Calif.
	Jackson Memorial Hospital, Miami, Florida
	Good Samaritan Hospital, Portland, Ore.
	Southern Pacific General Hospital, San Francisco, Calif.
Donaid Einier Kenninger	Hospitals and Clinics, Portland, Ore.
	mospitals and Chines, Fortiand, Ore.

Robert Henry Riordan	District of Columbia General Hospital, Washington, D.C.
John Holden Rippey	University of Minnesota Hospitals, Minneapolis, Minn.
Mason Walter Robison	
	Tripler Army Hospital, Honolulu, T.H.
	San Bernardino County Charity Hosital, San Bernardino, Calif.
Angus Bynon Stewart	Gorgas Hospital, Balboa Heights, C.Z.
	Los Angeles County Hospital, Los Angeles, Calif.
Ove Arvid Haakon Tonning	
Simone Truong-Thi-Hue	Good Samaritan Hospital, Portland, Ore.
William Curl Tubbs	San Bernardino County Charity Hospital, San Bernardino, Calif.
George John Vennes, Jr	Valley Forge Army Hospital, Phoenixville, Penn.
Gerald Lloyd Warnock	Tripler Army Hospital, Honolulu, T.H.
Robert Earl Watson	James Decker Munson Hospital, Traverse City, Mich.
	Los Angeles County Hospital, Los Angeles, Calif.
	Hospitals and Clinics, Portland, Ore.
Christopher Peter Spencer W	illiamsKing County Hospital, Seattle, Wash.
	St. Vincent's Hospital, Portland, Ore.
	Inited States Public Health Service Hospital, San Francisco, Calif.

Doctor of Philosophy

Pearl Rocca Garofalo Rose Kam Ling Wong

Master of Science

Margaret Alma Brown Lois Abelgore Epeneter Barbara Janette Hudziak Gertrude May Lee Virginia Jane Mueller Dorothy D. Rademacher Marjorie Harnden Sidman Lois C. Torgeson

Enrollment 1957-58

Medical Students

First-Year Class

Douglas B. Basham Robert A. Beatty Samuel T. Bennett Charles A. Bonnett Richard P. Bunch Douglas M. Burns Jean E. Carter George H. Caspar Richard E. Cavalli Gerald R. Christensen Marilyn A. Christensen Byong-Uk Chung F. Lawrence Clare James T. Clay Willis I. Cottel Mary Jane D. Dubinski Lloyd O. Eckhardt Raymond D. Endicott Thomas E. Fagan Bill B. Ferguson Robert L. Fulwyler Lee A. Gleason Raymond F. Graap, Jr. Keith F. Harcourt Thomas J. Harrison James T. Hartford

David L. Haugen Donald H. Heithecker Leonard L. Heston Frederick C. Hoesly Howard E. Johnson Kit G. Johnson Richard H. Johnson Bruce B. Johnstone Paul W. Jones Irwin E. Joslyn Visut Kanchanapoomi Alan L. Keaton John C. Kelly Harry Knudson Delbert M. Kole James C. Kraus Richard P. Lewis Merritt L. Linn Dale L. W. Lowther Joseph C. Macdonald Malcolm M. Marquis Winston E. Maxwell Hideyo Minagi Peter M. Nakamura James S. Noble Herald S. Nokes Bruce A. Peters

Donald W. Pittman
Robert D. Powers
James C. Puscas
Richard L. Redfern
Peter H. R. Roberts
Thomas L. W. Roe
Edward M. Schneider
Alan F. Scott
James M. Scott
Norman F. Scidenverg
William G. Sinclair
Michael J. Skala
Perry R. Sloop, Jr.
Esther A. Strom
John W. Tarnasky
Louis A. Taucher
Duane F. Taylor
Thomas L. Thornton
William M. Veatch
Vernon V. Viles
Ronald W. Vinyard
Wayne L. Walling
Daniel L. Wesche
Mary H. Wilder
David L. Wishart
Rose K. L. Wong

Second-Year Class

John T. Abraham, Jr. Royal G. Aubrey Roger A. Barnhart John A. Beare Charles S. Belknap Ernest J. Benner Lester L. Bergeron David E. Billings Richard M. Burns Robert B. Campbell Charles B. Carter Gunnar E. Christiansen Juris Cilnis William W. Cox William V. Coyner Richard V. Crisera Dennis G. Crockett Clayton H. deBruin John M. Deeney Rolf R. Engel Eldon L. Erickson William F. Farr

James A. Fraser
Fredrick T. Fraunfelder
P. Rocco Garofalo
Robert H. Gustafson
Archie Y. Hamilton
Chris L. Harrigfeld
J. Ivan Hewitt
Wesley R. Jacobs
Joanne Jene
Robert H. Jensen
David W. Johnson
Albert R. Kearns
Darwin G. Lehfeldt
John L. Linn
Robert C. Loomis
Laury E. Lundberg
Robert A. McFarlane
Sam L. Meyer
Michael J. Miller
Rodger M. O'Harra
Richard P. Panian

Clarence D. Peters Richard H. Phillips William B. Pollard Donald D. Ramsthel Keith A. Robertson Robert A. Roth James A. Saunders James A. Saunders
Alexander J. Schleuning
Benjamin B. Shepherd
Rosemary W. Stevens
John H. Stone William R. Stoner George R. Suckow, Jr. Kenneth I. Sutherland Norio Takayama K. Nolan Tanner Andrew N. Urbanc Vance Vaupel Jerry Wetherell Palph E. Whiting Homer L. Winslow Richard K. Woodward

Walter C. Bernards Betty C. Blomquist David G. Bragg Robert M. Brown Richard D. Brust John A. Buehler Peggy J. Copple Nolan R. Cordon Winston I. Cozine Betty Jo Davenport F. Douglas Day Wayne R. DeMott H. Loring Dixon Robert P. Doughton Richard F. Drake William James Dunlap Edward C. Eberdt Joseph W. Edgett, Jr. Donald G. Edwards John H. Ellison John C. English Riccardo R. Foggia Jerry D. Giesy Kenneth M. Giles G. Sheldon Green

Donne G. Griffith

Third-Year Class

Kenneth B. Haevernick Lawrence H. Hansen Toshi Hasuike Keith D. Holmes William S. Hoskinson Darrell H. Hunsaker Lynn S. Husband James D. Imbrie Harley D. Kelley Walter F. Krengel Robert C. Luther Richard B. Lyons Richard J. McCarty David S. McDaniel Walter E. Meihoff Robert A. Mendelson Tate M. Minckler Winston A. Mitchell Wayne L. Murray Lew B. Myers Dean E. Neil Marilyn A. Nelson James R. Orendurff U. Scott Page Willis E. Peacock James L. Petroske

T. James Robnett John N. Roehr Richard A. Romaine R. Bradley Sack William H. Sack George J. Sakurai Richard D. Saloum Richard D. Schultz Delbert E. Scott David A. Sears Glen S. Shipley Ramon G. Shoen John D. Sigurdson Ronald P. Smith Russell T. Stodd Roy D. Strand Robert W. Straumfjord Howard H. Sussman John W. Thompson Jinmy K. Tsujimura Cccil A. VanKleek Gaylord C. Weeks Robert W. Wesche Livingston M. F. Wong Marvin R. Young

Fourth-Year Class

Donald V. Adams
Robert J. Alzner
Ronald K. Arbon
S. Hugh Atchley, Jr.
Joseph W. Ball
John R. Barnes
Robert C. Black
Thomas G. Boland
William J. Brady
Bryce D. Breitenstein, Jr.
Ralph J. Cannard
Peter B. Carter
Donald L. Cleland
Dorothy F. Cooney
Stephen E. Cox
William L. DeBolt
Daniel L. Dennis
Larry N. Doyle
William E. Drips, Jr.

Philip P. Ernstrom
Dee L. Fuller
Robert P. Griffin
Robert F. Haney
William P. Haney
John R. Hazel
Gerald N. Hecker
Lawrence R. Heiselt
Kenneth W. Hjortsvang
Arthur H. Holmboe
Robert H. Kroeger
Otto L. Loehden
Ronald J. Lowell
Dean M. Macy
Martin Magi
Robert E. Mammen
Louis R. McKael
Mark A. Melgard
John R. Miewald

John C. Misko
Donald A. Morrison
Edward H. Murphy
Ayako Nagasaka
James C. Newman
John K. Newton
Samuel A. Ojo
Robert L. Olson
E. Mansell Pattison
Ralph W. Paul
Catherine A. Poole
Donald D. Price
William J. Reeves
Donald E. Remlinger
Robert H. Riordan
John H. Rippey
Mason W. Robison
Charles M. Schultz
David D. Smith

Angus B. Stewart William Tomori Ove A. Tonning Edward T. Toyooka Simone Truong-Thi-Hue William C. Tubbs George J. Vennes, Jr. Gerald L. Warnock Robert E. Watson

Dale F. Webb Miles L. Weber Christopher P. S. Williams Arthur N. Wilson, Jr. Albert C. Witt

Graduate Students

James O. Alben Charles Beaudreau John C. Elwood Catherine L. Gruber Marvin C. Hines Leonard N. Johnson Gustave Kemnitz Nicholas Kontaxis Alicia E. Marco James McNeese Madhukar Phatak

Special Students and Auditors

Herbert C. Berquist Betty K. Ishida Arthur Koehler John Obye Elizabeth Turner

Medical Technology Students

Frances M. Achee Helen C. Beal Marcia E. Brooks Hildred M. Daly James D. Day Claudia L. Dudley Gladys L. Everest Ethelyn C. Griffith Judith Y. Heitkemper Loretta E. Kelley Beverly M. Lockard Harriet A. H. Lou Elaine S. Moore LaVaunie P. Muntz Shirley A. Parmenter Diane L. Patterson Joan P. Payne
Aimee S. Persons
Kenneth E. Puckett
Carla E. Schultz
Nancy J. Seott
Sonya L. Smithson
H. Dale Warren
Florence E. Woodworth

Summary of Enrollment 1957-58

	Men	Women	Total
First year	74	. 5	79
Second year	62	3	65
Third year	73	4	77
Fourth year	67	4	71
Total regular students	276	16	292
Graduate students	9	2	11
Special students and auditors	3	2	5
Medical technology students	3	21	24
Total	291	41	332

Index of Names

Abele, J. F., 68
Acker, D. W., 63
Adams, J. C., 65
Adams, J. J., 65
Adams, J. J., 65
Adix, H. V., 70
Alben, James, 56
Allen, Bernadene V., 65
Allen, Bernadene V., 65
Allen, H. E., 58
Allen, Marchetta, 75
Allen, Marilouise, 55
Allison, R. L., 68
Anan, F. K., 55
Anderson, C. H., 53
Anderson, H. V., 68
Anderson, Pauline, 73
Anderson, Pauline, 73
Anderson, R. L., 67, 68
Ansley, H. R., 55
Ashley, C. G., 71
Aubrey, R. C., 57
Aumann, K. W., 59, 62
Austin, G. M., 57, 69, 72
Austin, J. H., 58, 62
Babson, S. G., 71

Babson, S. G., 71 Bachman, D. M., 59 Bacon, R. L., 54, 55 Baglio, Corrado, 56 Bailey, P. F., 69 Bailey, Paul, 70 Baird, D. W. E., 7, 53, 54, 57, Paird, M. D., 60
Baker, H. W., 66
Baklantyne, H. B., 59, 75
Bamshad, Jalal, 63
Baptist, Mary E., 50, 56
Bardy, Geraldine F., 74
Barton, Evelyn, 73
Bassett, I. W., 66
Battalia, J. E., 66
Beall, S. T., 59
Beals, R. K., 69
Beardsley, G. D., 67
Beattie, Canfield, 70
Beatty, Clarissa, 55
Beckwith, H. G., 66
Begg, R. E., 68
Bell, Gladys, 75
Bennett, F. B., 7
Bennett, J. S., 56
Benson, Clarence, 71
Benson, R. C., 54, 70, 72
Bentley, F. H., 66
Benward, J. H., 71
Berg, A. W., 59
Berg, R. F., 68
Berger, E. H., 58, 61
Bergheim, Mildred, 73
Bergman, A. M., 58
Berguist, S. F., 66
Bernards, W. C., 56
Berrier, Karla, 73
Bergnan, A. M., 58
Bergy, A. L., 54
Bigley, R. H., 60
Biderback, J. B., 71
Billmeyer, D. K., 72
Bischoff, T. M., 71
Bissett, R. A., 63
Blake, W. D., 57
Blanchard, J. A., 59

Blatchford, R. C., 70
Blickle, J. F., 59
Bline, N. L., 64
Blocek, Rose M., 55
Bollam, D. C., 66
Bolton, R. N., 71
Bolton, W. M., 70
Bork, H. A., 7
Boyden, A. M., 65
Boyden, G. L., 54, 70, 73
Boyden, T. J., 68
Boyles, T. J., 68
Boyles, T. J., 68
Boyles, Charles, 65, 71, 75
Brang, D. G., 57
Brandon, S. A., 63
Brazie, J. V., 72
Breese, M. W., 71
Brile, G. C., 53, 72, 74
Bridgeman, M. L., 71
Brill, I. C., 58, 61
Brookhart, J. M., 54, 57
Brose, D. J., 67
Brown, W. C., 66
Browne, Barbara, 74
Bruce, D. H., 63
Brunkow, C. W., 66
Bruskley, J. E., 66
Buckley, J. E., 66
Buckley, J. E., 66
Buckmaster, R. E., 68
Buerman, Winfred H., 66
Burgner, P. R., 59
Burkes, D. C., 64
Burns, E. M., 58
Burton, W. Y., 64
Bussman, J. W., 72
Bybee, B. C., 63
Byrne, C. D., 7

Cabell, H. E., 6
Cahill, Dorothy, 73
Caldwell, Jean, 74
Campbell, I. M., 64
Campbell, N. J., 66
Campbell, Paul, 68
Caniparoli, S. D., 66
Carlson, C. E., 68
Carlson, C. E., 68
Carlson, W. H., 7
Cart, Doris, 75
Carter, C. B., 57
Carter, C. B., 57
Carter, C. C., 59, 62
Case, R. A., 69
Castro, Linda E., 56
Catlow, C. E., Jr., 67
Chamberlain, G. E., 70
Chase, J. D., 59
Chauncey, L. R., 65
Chavigny, C. L., 71
Chenoweth, B. R., 63
Cherry, H. L., 68
Christensen, Leonard, 69
Chuinard, E. G., 68
Clancy, C. L., 71
Clarke, W. H., 68
Cleland, J. G. P., 66
Clemons, A. J., 53, 73
Clisby, K. M., 66
Cochran, Q. W., 71
Coffen, C. W., 58, 61
Coffey, R. M., 66
Cohen, L. J., 68
Colen, William, 58, 61
Collere, E. J., 68
Collings, G. J., 63

Collins, R. L., 7
Colver, H. D., 66
Conklin, W. S., 58, 61, 65, 73
Corthell, D. W., 65
Costello, Margaret A., 75
Cotterell, C. W., 75
Cottrell, G. W., 68
Cowger, R. C., 70
Cozine, W. I., 56
Cramer, J. F., 7
Criteser, G. F., 73
Crommellin, R. M., 58, 61
Crosland, Thelma, 73
Crows, F. W., 63

Crossand, Inelma, 73
Crows, F. W., 63
Dahl, Joyle, 63
Dana, G. W., 71
Daniels, Farrington, Jr., 63
Danilson, Thelma M., 65, 75
Davenport, D. D., 63
David, N. A., 54, 57
Davies, G. H., 55
Davis, A. M., 58, 61
Davis, E. W., 69
Davis, H. E., 68
Davis, J. B., 68
Davis, H. C., 69
DeWeese, D. D., 70
DeWitt, Peter, 66
Diack, Samuel, 59, 61
Dick, H. A., 64
Ditch, H. A., 64
Ditch, H. A., 64
Ditch, H. A., 64
Ditch, H. A., 64
Dobbin, Harold, 75
Dobson, D. P., 68
Dodson, R. M., 66
Doeneka, H. L., 74
Dotter, C. T., 54, 64, 73
Doughton, R. P., 57
Dow, R. S., 58, 62
Doyle, P. J., 70
Drum, Hilda E., 64, 73
DuBois, E. D., 58
Duffy, Beatrice, 73
Durfee, R. B., 70
DuVall, C. H., Jr., 70
Dygert, H. P., Jr., 59
Dykman, A. B., 69
Eddins, Betty Jo, 73

Eddins, Betty Jo, 73
Edelson, Z. C., 66
Edwards, M. J., 60
Edwards, T. A., 69
Eisendorf, L. H., 66
Eland, D. G., 63
Elitez, M. Y., 64
Elliott, J. E., 72
Ellsworth, R. J., 70
Elnier, A. D., 75
Elwood, J. C., 56
Emig, O. R., 56, 70, 71, 75
Enders, W. R., 70
Engel, R. R., 57
Engel, R. C. H., 71, 75
Ericksen, W. G., 64
Erickson, H. M., 65
Evans, J. W., 64
Everett, F. G., 63

Fadiga, Ettore, 57 Fagan, C. A., 69 Fayen, A. W., 56 Fearl, Clifford, 70 Fellman, J. H., 55, 62
Fenton, R. A., 55
Field, J. E., 58, 62
Finlay, J. D., 63
Fischer, R. E., 69
Fisher, D. A., 72
Fisher, Stella, 59
Fitzpatrick, T. B., 63, 73
Fixott, H. C., Jr., 63
Flanery, J. R., 59
Forrester, J. W., Jr., 6
Forster, D. E., 54, 58
Fortsch, B. L., 70
Fouch, William, 74
Fountain, Helen, 73
Fow, Margaret, 74
Fox, T. J., 66
Fowlks, W. L., 63
Francone, Clarice A., 54
Franklin, R. W., 71
Frederick, Amby, 53
Freeman, Maxine, 74
French, Katherine S., 75
Frisch, A. W., 54, 55
Frisch, D. C., 63
Friy, R. J., 69
Fujikura, Toshio, 57
Fulsher, R. W., 71
Furnas, Esther J., 64
Galante, P. J., 59, 61

Fulsher, R. W., 71
Furnas, Esther J., 64
Galante, P. J., 59, 61
Galen, W. P., 59, 61
Gantenbein, C. E., 69
Gardner, J. S., 67
Garnjobst, W. M., 66
Gaver, K. D., 64
Gee, Pinkie S., 56
Gehrsitz, Leta B., 69
Genoud, J. N., 73
Gilbert, R. M., 68
Giles, K. M., 56, 70
Gill, J. H., 68
Gilmore, M. F., 58
Goldman, M. C., 59
Goldman, M. C., 59
Goldman, Morton, 54, 58, 61
Goodman, Morton, 54, 58, 61
Goodman, Ora K., 53
Goodnight, Scott, 71
Gorrell, G. W., Jr., 67
Goss, W. A., 71
Gorrell, G. W., Jr., 67
Goss, W. A., 71
Greene, Marvis, 53, 54, 58, 72, 74
Grable, Fredericka, 73
Graven, Patricia, 74
Grant, A. S., 6
Gray, R. H., 60
Green, Marian, 74
Greene, R. B., Jr., 68, 71
Greenehaum, Marvin, 65, 75
Greer, M. A., 57, 58, 62
Grewe, R. V., 69
Grieve, M. Irene, 17
Griffith, D. G., 63
Grimsgaard, Aagot, 62
Griswold, H. E., Jr., 58, 61, 75
Grondahl, R. D., 50, 54, 56, 73
Groshong, L. E., 66
Grover, M. R., 53, 59, 72
Guenther, Angela M., 56
Guilsk, G. E., 63
Gunberg, D. L., 55
Gurney, C. E., 65
Gustavson, R. G., 66
Habiger, Madelyn, 74
Hafner, P. G., 17

Habiger, Madelyn, 74 Hafner, P. G., 17 Hallem, Bertha B., 53, 54 Hamilton, Martha L., 50, 56 Hampton, J. B., 59 Hand, J. R., 67 Haney, H. F., 54, 57, 61, 62 Hansen, F. S., 65
Hansen, J. R., 72
Hansen, R. M., 70
Hara, G. S., 71
Harber, J. V., 68
Hardwick, C. E., 66
Harte, R. L., 59
Harpole, B. P., 66
Hart, Allan, 6
Hart, J. T., 71
Hart, Lois, 73
Harris, H. H., 50, 56
Harris, J. E., 54, 55, 69
Harrison, W. D., 59
Hartley, Lyn, 74
Hartmann, W. L., 57, 71
Harvey, H. T., 59, 62
Haskins, John, 64
Hatch, Virginia R., 75
Haugen, G. B., 64
Haugen, F. P., 54, 66, 68, 73
Haworth, J. B., 64
Healy, T. S., 59, 62
Heller, C. G., 58, 62
Heller, C. G., 58, 62
Henderson, Esther, 74
Henderson, E. H., Jr., 71
Hill, A. J., 54, 71, 73
Hill, R. V., 69
Hinck, V. C., 64
Hines, Marvin, 56
Hodges, C. V., 67, 73
Hokeness, Ardys, 74
Holocmb, Blair, 57, 61
Holden, D. H., 70
Holder, T. D., 63
Holland, J. E., 59, 75
Hollenbeck, W. F., 58, 62
Holloman, C. N., 53, 54, 57, 72
Holman, C. N., 53, 54, 57, 72
Homes, K. D., 55
Honey, LaVerne, 74
Hopkins, C. E., 54, 65
Hopkins, R. J., 68
Horenstein, M. M., 60, 61
Hott, S. A., Jr., 68
Horenstein, M. M., 60, 61
Hott, S. A., Jr., 68
Horenstein, M. M., 60, 61
Hott, S. A., Jr., 68
Horenstein, M. M., 60, 61
Hott, S. A., Jr., 68
Howard, M. A., 66
Hoyt, J. C., 60
Hughes, Margaret E., 53
Huitgren, Clarence, 73
Hunter, W. W., 60
Husband, L. S., 57
Hutchens, W. H., 4
Hutchins, T. T., 50, 54, 56
Hyman, M. D., 64
Hyman, Selma, 64

Imbrie, J. D., 63 Inahara, Toshio, 66

Jackson, R. C., 71
Jacobs, W. R., 57
Jacobson, S. A., 56
James, D. W., 71
James, R. L., 68
Janzer, N. M., 64
Jeffrey, R. T., 53
Jens, Ruth, 65
Jesscil, C. T., 64
Johnson, R. B., 60, 62
Johnson, R. L., 67
Johnson, Verna, 74
Johnsrud, R. L., 66

Johnston, G. I., 54 Jolly, R. L., 55 Jones, A. C., 65, 73 Jones, L. T., 70 Jones, N. W., 55 Jones, O. N., 68 Jordan, L. W., 70 Joyner, Evolyne, 73

Kammer, Huldrick, 58, 61, 62
Kanzler, Reinhold, 67
Kassebaum, D. G., 60
Kavanaugh, J. D., 67
Kawano, Masashichi, 69
Kearns, A. R., 57
Keizer, J. P., 69
Keller, R. B., 63
Kelly, D. F., 72
Kelly, Esther, 73
Kemnitz, G. W., 56
Kendall, R. W., 67
Kenin, Lena, 65
Kerr, Carol E., 54
Kerr, W. J., 7
Kiest, C. H., Jr., 69
Kimberley, G. A., 68
Kingery, L. B., 63
Kinzel, G. E., 71
Kleinsorge, R. E., 6
Kloos, E. K., 69
Knapp, B. I., 72
Koler, R. D., 58, 62
Kontaxis, Nicholas, 56
Krakauer, L. J., 60, 62
Kreft, A. J., 69
Krippaehne, W. W., 54, 60, 66
Krygier, J. J., 58, 62
Kuntz, M. L., 60
Kvernland, B. N., 69

Kvernland, B. N., 69

Labby, D. H., 54, 58, 61, 62

Lage, G. H., 71

Laidlaw, W. M., 62

Laird, D. R., 66

Landreth, E. W., 50, 56

Langston, L. R., 69

Larrabee, J. A., 71

Larsell, J. F., 17, 68

Larsen, M. M., 61

Larson, W. L., 60

Leaverton, G. H., 67

Lee, J. R., 64

Lehman, T. H., 68

Lembert, G. E., 72

Lentini, E. A., 57

Lewis, H. P., 34, 57, 73

Lieuallen, R. E., 7

Lillywhite, H. S., 71, 75

Lim, D. W., 70

Lindgren, W. V., 67

Lino, Louis, 62

Littlehales, C. E., 59, 62

Livingston, W. K., 65

Livingston, W. K., 65

Livingston, W. K., 65

Livingston, E. T., 60, 61, 62

Lobb, R. S., 60

Lockwood, M. C., 67

Lodmell, L. A., 59, 62

Logan, N. D., 69

Long, G. B., 58, 62

Loomis, J. W., 64

Losli, E. J., 56

Lowell, L. M., 61, 66

Lucas, L. S., 68

Lyman, G. P., 69

Lyons, R. B., 55

MacDaniels, L. K., 60
Macfarlane, D. W., 72
Macfarlene, C. A., 68
MacNaughton, Cheryl S., 6
Mahnke, D. F., 67
Mallory, Eleanor, 73
Manville, I. A., 62
Marco, Alicia, 56
Marcum, R. W., 66
Margason, M. L., 57, 62
Markee, F. K., 71
Markee, R. K., 67
Markley, R. E., 69
Marshall, A. N., 71
Martin, Laura P., 73
Martzloff, K. H., 66
Masenhimer, H. W., 61
Mason, D. C., 67
Mason, H. S., 55
Mason, J. A., 68
Mass, R. E., 59, 62
Massar, J. C., 63
Matteri, R. R., 59, 61
Matteri, R. R., 59, 61
Matteri, R. R., 59, 61
Matwell, Marjorie P., 73
Maxwell, Marjorie P., 73
Maxwell, W. E., 54
May, J. A., 72
McAfee, Ramona, 74
McCadley, E. L., 54, 57
McClure, C. R., 55
McCutchan, G. R., 59
McElveny, Lolita B., 53
McGreevey, D. P., 60, 75
McKean, Douglas, 6
McKirdie, Matthew, 66
McLauchlan, D. A., 65
McLean, E. N., 69
McMurray, W. R., 69
McMurray, W. R., 69
McMurray, W. R., 69
McMabon, R. A., 59
McMurray, W. R., 69
McMahon, R. A., 59
McMurray, W. R., 69
McMurray, W. R., 69
McMaese, James, 56
McWilliams, Emma H., 74
Meador, T. L., 65
Meechan, R. J., 72
Meek, E. C., Jr., 54, 56
Menashe, V. D., 72, 75
Menne, F. R., 55
Mercer, Ruth L., 60, 74
Merrifield, R. C., 69
Miller, R. F., 59
Miller, R. F., 59
Miller, R. F., 59
Miller, R. S., 64
Milstein, Victor, 62
Minckler, Jeff, 56
Michell, J. C., 70
Meyer, S. L., 58, 61
Moore, R. J., 68
Moreland, J. I., 69
Morrison, C. V., 65
Murroe, W. R., 67
Moore, R. J., 68
Moreland, J. I., 69
Morrison, C. V., 65
Murroe, W. R., 67
Morrison, C. V., 65
Murroe, W. R., 67
Morrison, C. V., 65
Murroe, W. R., 67
Murphy, J. J., 60

Myers, L. B., 57 Myers, P. B., 70

Nadal, J. W., 66
Nakamura, Haruomi, 62
Napier, J. V., 71
Nash, G. A., 72
Naysmith, Joan, 74
Neal, W. R., 62
Neilson, D. R., 70
Neilson, D. R., 70
Neilson, G. E. C., 70
Nelson, Lorraine, 74
Nichols, G. B., 64
Nichols, H. M., 67
Nickerson, F. B., 7
Niles, N. R., 54, 56
Nishet, O. M., 66
Noall, Lawrence, 68
Nohlgren, J. E., 17, 56
Noyes, H. J., 7, 54, 63, 73
Nudelman, P. L., 60

Odell, J. E., 72 Oginsky, Evelyn L., 54, 55 Olson, D. E., 60, 61 Onopryenko, Irarion, 55 Orth, Margaret, 74 Osborn, Samuel, 69 Osgood, E. E., 54, 58, 62 Osgood, S. B., 65 Ovregaard, A. L., 64 Oyamada, Abe, 56

Ovregaard, A. L., 64
Oyamada, Abe, 56
Packard, F. B., 67
Packer, P. C., 7
Page, O. C., 60
Page, U. S., 63
Pallett, E. M., 6, 7
Paquet, J. F., 59
Parker, A. H., 65
Parker, C. R., 65
Parrott, M. H., 71
Parsell, Marian W., 74
Partridge, J. W., 60
Patton, R. W., 67
Paull, D. P., 68
Paulson, D. R., 63
Paxton, H. D., 69
Pearson, A. A., 54, 55
Perkins, N. H., 60
Perley, Anne M., 55
Perlman, Frank, 58, 61
Peterson, C. G., 65, 73
Peterson, C. G., 65, 73
Peterson, Edward, 55
Peterson, Ruth D., 59
Peterson, Ruth D., 59
Peterson, Ruth D., 59
Peterson, Ruth D., 55
Petroff, A. E., 70
Phillips, J. T., 54
Phillips, J. T., 57
Pickering, N. A., 57
Pickering, N. A., 57
Pickering, N. A., 57
Pickering, N. M., 57
Pickering, N. M., 57
Pickering, N. M., 57
Pickering, D. E., 54, 55, 72
Pickering, N. M., 57
Pickering, D. M., 57, 58, 61
Pittenger, R. G., 60
Pommarane, Caroline H., 53, 54
Poole, LeAnn, 74
Poppe, J. K., 66
Porter, D. R., 63

Prinzing, Dorothy M., 75 Prokopovich, Jacklyn, 74

Puziss, Irving, 67

Queen, F. B., 56

Raaf, John, 69
Rabenberg, J. R., 64
Raines, J. R., 64
Rampone, A. J., 57
Rankin, Gale, 74
Rankin, G. M., 69
Rawlinson, May E., 73
Ray, J. L., 71
Ray, L. F., 63
Reaume, R. B., 61
Rector, E. M., 72
Reed, C. E., 60, 61
Rees, S. E., 64
Reese, D. G., 63
Reeves, M. M., 67
Reilly, P. J., 62
Reimer, W. C., 67
Remly, Ruth, 73
Richards, J. R., 6, 53, 54
Richards, O. R., Jr., 60
Rickles, N. H., 63
Riddle, M. C., 54, 58
Rigas, D. A., 55, 58
Riley, J. A., 60, 62
Rinehart, R. E., 60
Rippey, E. E., 67
Rittel, R. C., 63
Ritzmann, L. W., 58, 61
Roberts, J. M., 66
Robins, G. M., 59, 61
Roberts, J. M., 66
Robins, G. M., 59, 61
Roberts, J. M., 66
Robins, G. M., 59, 61
Roberts, J. M., 66
Robins, G. M., 59, 61
Roberts, J. M., 66
Rosenbaum, E. G., 69
Robnett, T. J., 57
Rockey, E. W., 65
Rogers, W. R., 60
Roherr, Esther J., 74
Romaine, R. A., 56
Rose, L. B., 60, 61
Rosenbaum, E. E., 59
Rosenbaum, W. M., 67
Rosenblatt, M. S., 66
Rosenfeld, J. W., 55
Ross, B. B., 57
Roth, J. C., 68
Rowland, W. D., 67
Rush, H. P., 54, 58, 61
Rustin, Arnold, 68
Ryan, Margaret, 74
Russell, K. P., 17

Russell, K. P., 17

Sack, R. B., 54, 55

Sack, W. H., 56

St. Pierre, E. W., 66

Saslow, George, 54, 64, 73

Satchfield, June, 74

Saunders, G. C., 70

Saunders, J. A., 54

Saunders, T. S., 63

Schaan, R. C., 72, 75

Schaeffer, R. L., 17

Schafer, W. W., 63

Schauffer, G. C., 54, 70

Scherman, Quinten, 71

Schlegel, H. E., 69

Scheuffer, R. W., 60, 61, 62

Schropfer, Jean, 74

Schultz, R. D., 56

Schunk, G. J., 72

Schwaegler, L. J., Jr., 67

Schwartz, Marvin, 59, 61

Schwiebinger, G. W., 68

Scott, Jean, 56

Seott, W. C., 59

Seabrook, D. B., 65

Seaman, A. J., 58, 62

Sears, H. J., 55

Seiji, Makoto, 63

Selling, Laurence, 55

Selling, Philip, 58, 61
Senders, W. L., 60
Setere, Bernice, 74
Shanklin, J. G., 64
Sharf, Alice, 74
Sheldon, W. H., 58
Shepherd, B. B., 57
Sherburne, J. W., 7
Shick, P. E., Jr., 72
Shields, A. B., 67
Shipps, F. C., 64
Shiim, Nathan, 67
Shonat, G. C., 67
Short, F. A., 17, 68
Shubeck, Frank, 71, 75
Siddoway, R. R., 64
Sigurdson, J. D., 57
Simons, Max, 70
Sinclair, J. E., 69
Sisler, Frank, 65
Sleeter, R. L., 54, 71, 75
Slocum, D. B., 69
Smith, C. E., 63
Smith, Doris C., 64
Smith, G. N., 71, 75
Smith, K. R., 75
Smith, K. R., 75
Smith, L. H., 72
Smith, N. D., 60
Smith, C. E., 63
Smith, G. N., 71, 75
Smith, K. D., 70
Sneeden, V. D., 56
Snedecor, P. A., 67
Snell, W. E., 68, 73, 75
Snook, W. M., 72
Soelling, J. L., 59, 62
Sorenson, S. M., 57
Sparks, C. H., 67
Speros, J. T., 58, 61, 74
Speros, Margaret H., 60, 62
Spoerli, Ruth W., 75
Sparks, C. H., 67
Speros, J. T., 58, 61, 74
Speros, Margaret H., 60, 62
Spoerli, Ruth W., 75
Sparks, C. H., 67
Speros, J. T., 58, 61, 74
Speros, Margaret H., 60, 62
Stephens, J. T., 61
Stephens, J. W., 66
Steinberg, M. E., 57
Stephens, J. T., 61
Stephens, J. W., 60
Stevens, Janice R., 59, 62
Stephenson, M. J., 72
Stevens, R. B., 67

Stevenson, E. N., 7
Stevenson, J. L., 72
Stewart, S. E., 72
Stotler, W. A., 55
Strand, A. L., 7
Straube, K. R., 64
Suher, Theodore, 63
Sullivan, A. W., 17
Sullivan, R. R., 63
Swan, K. C., 54, 69, 73
Swank, R. L., 58, 62, 73
Swank, R. L., 58, 62, 73
Swart, Elsa, 74
Sweetman, W. R., 67
Swett, W. J., 59, 61

Takalo, D. S., 50, 56
Talbot, T. E., 69
Tall, R. K., 63
Talman, Ellen L., 55, 69
Tanner, K. N., 55, 70
Tatum, D. E., 60
Taylor, D. R., 60
Taylor, D. R., 60
Taylor, E. M., 65
Ten Eyck, T. G., 70
Thomas, W. O., 71
Thompson, Shirley M., 65
Tinker, R. H., 67
Titus, B. L., 70
Tivey, Harold, 64
Todd, W. R., 54, 55
Toon, R. W., 67
Toyooka, E. T., 57
Trainer, J. B., 53, 54, 57, 58
Tripp, Mary, 73
Trommald, J. P., 66
Tunturi, A. R., 54, 55
Tuhy, J. E., 58, 61

Uhle, A. O., 67 Underwood, Frank, 58, 61 Underwood, R. J., 68 Urbano, A. N., 57

Van Bruggen, J. T., 54, 55 Vandenberg, J. G., 68 Van Rooy, C. W., 72 Van Wald, C. U., 54 Varga, Charles, 72 Veazie, Lyle, 55 Vercellino, Joyce, 74 Viciedo, Z. R., 56 Vidgoff, Ben, 59 von Otterstedt, W. D., 7

Vingolf, Beh., 39
Vingolf, Beh., 39
Vingolf, Beh., 39
Walliker, G. F., Jr., 72
Walsh, W. E., 6
Ward, Beverly, 74
Waterman, E. A., 71
Waterman, E. A., 71
Waterman, J. H., 65
Wayson, E. E., 67
Weible, Betty, 73
Weinzirl, Adolph, 54, 65
Welborn, W. S., 60
Welch, J. D., 59
West, E. S., 54
Wert, A. D., 72
West, E. S., 55
Westfall, R. N., 70
Whipple, Nellie, 74
White, Randall, 75
Whitley, J. M., 71
Whittemore, J. P., 72
Wilcox, R. H., 65
Wiley, J. W., 67
Wilhelmi, K. C., 60
Williams, C. L., Jr., 60
Williams, C. L., Jr., 60
Wills, T. E., 70
Wilson, D., 67
Wilson, R. D., 66, 61
Wilson, W. M., 70
Wirtschafter, Z. T., 58
Wose, R. A., 66
Wolfe, P. S., 65
Wood, G. D., 67
Woodworth, J. V., 60
Woolley, I. M., 64
Yang, Y. H., 56

Yang, Y. H., 56 Yoshida, Yoshio, 63 Yoshitomi, Dorothy, 74

Zaslow, R. W., 65, 75 Zeller, R. W., 69 Zeller, W. E., 66 Zimmerman, W. A., 53, 54, 72 Zumbo, N. J., 56